The Harveian Oration,

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MR. PRESIDENT AND GENTLEMEN,—To-day we meet together in fulfilment of the express wish of Harvey, our illustrious benefactor and most distinguished ornament, and it is my duty "to commemorate the benefactors of the College and to encourage its members to search out the secrets of nature by way of experiment." I will not apologise for endeavouring to perform this duty, imposed upon me by our past President, heartily though I wish it had fallen into worthier hands. As a duty I accepted the task; and it is made a pleasant one by the feeling that in commemorating the achievements of the past I shall have the sympathy of my audience; and if, whilst looking to the future, and pointing to the direction in which further advances are possible, and suggesting routes by which these advances may be made, some here present are encouraged and stimulated by what I say to search out these secrets of nature, I shall feel that the very deep anxiety with which I venture to address you has not been altogether fruitless.

And what are the achievements of the past? and of the present? Is disease being prevented? Is life being prolonged? Is pain lessened? When disease arises, can it be more skilfully treated or more rapidly controlled? It is almost superfluous for me in this assembly to answer these questions, or to point out how intimately our progress has been associated with and dependent upon Harvey's great discovery. As illustrations, need I speak here of the diminished mortality from consumption, which, by the recognition of and attention to ordinary sanitary laws, has during the last quarter of a century been reduced in England and Wales 28 per cent.; or of the diminished mortality from ague or from typhoid fever? Is pain lessened? Need I refer to ether and chloroform; or to nitrite of amyl, which is now finding a more extended use than in simply relieving angina pectoris; or to the hypodermic injections of remedies such as morphia and ether? When disease arises, can it be more skilfully treated or more rapidly controlled? Need I speak of the effects of the bromides in epilepsy and allied disorders; of the specific effect of quinine in ague, or of the equally specific effect, in proper doses and with suitable diet, of the salicyl compounds in acute rheumatism; of the diminished mortality from pneumonia; of the use of the aspirator in pleuritic and pericardial effusion; of our increased skill in the localisation of cerebral disease, and the brilliant results which are now achieved by surgery in connexion therewith? All these are modern advances of which we may well be proud. The names of those, many still happily living among us, to whom we owe this increased knowledge, are known to you all. It is unnecessary therefore to commemorate singly those distinguished Fellows of this College whose names connected with the advance of medicine will be cherished by posterity not only as benefactors of this College, but of mankind at large.

And what shall I say of our greatest benefactor whose memory we specially commemorate to-day? When I turn to the orations delivered by my predecessors, I find that the history of Harvey's life, his surroundings, his mode of investigating nature, his early studies, classical, dialectical, and physical, his habit of inductive reasoning, the steps leading to his great discovery, the grounds for asserting his rightful claim to be the discoverer, have all been so eloquently discussed and so exhaustively displayed before you that it would be out of place for me to dilate on any of these themes. Permit me rather to picture before you to-day some of the discoveries which have been made in modern times, in matters connected with the circulation, and more particularly in reference to some of the changes in the blood which may be associated with or productive of disease, and thus to indicate some of the additions to that fabric of scientific medicine of which Harvey's great discovery is the corner stone.

Following upon the labours of Harvey, we note the discovery of the capillaries by Malpighi, about 1687, our knowledge thereof improved by Leeuwenhoek in 1729, and then by Hales, Cowper, Haller, and Lieberkühn, and perfected by Prochaska in his publication in 1812. Subsequently we learned how the rhythm of the heart may be interfered with by causes acting through the nervous system, and how the calibre of the minute arteries may be modified through the same agency. Then we have the changes connected with inflammation; and can we not picture to ourselves with what special interest such an observer as Harvey would have watched the changes which take place in the vessels and the surrounding tissues following upon irritation or inflammation, and which, by the aid of those appliances with which modern science has furnished us, have been discovered in recent times? I refer to the dilatation and relaxed condition of the vessels, the slowing of the blood stream, the falling out of the colourless corpuscles, like tired soldiers on the march, as Professor Burdon Sanderson has expressed it, leaving the mid-stream and loitering against the vein wall, afterwards sticking to it, and then in some wonderful way wandering out, emigrating through the unbroken vascular wall into the surrounding space, some of them becoming disintegrated and dissolved in the liquid which is also effused, and so leading to an accumulation of coagulable lymph or inflammatory exudation external to the vessels. How much is there in these phenomena which still require investigation and explanation. Why do the bloodvessels dilate? How is the emigration of the colourless corpuscles to be explained? By what means also do these corpuscles "penetrate into dead tissue, and indeed into any material capable of imbibition with which they are brought into contact in an active state?" And then the further questions may be suggested: Does there exist an antagonism or attraction between these white corpuscles and those recently discovered organisms, the bacilli? Is there a struggle for existence between them? How are the powers, and action, and growth of the colourless corpuscles modified by the presence of these micro-organisms? What part do the latter play in the production of disease? Is it true that a large part of all health and disease in the world is dependent upon them? Such questions as these indicate the degree of importance which must be assigned to the discovery of these bodies, and account for the interest in them which prevails at the present time. Probably no other discovery since that of the circulation of the blood appears to be so full of promise in elucidating the causes and courses of some diseases as this one. These micro-organisms in various forms seem to take part in the destructive changes with which we are familiar in the animal and vegetable world; they are found in connexion with certain diseases, and some of them have their home in the circulatory apparatus. Is it not, then, peculiarly fitting that on an occasion like this some reference should be made to these micro-organisms? We can rightly commemorate and rejoice over the work which has been done in this direction, whilst we feel at the same time how much there is still unsettled and obscure. The knowledge gained from the experimental observations on animals is as yet applicable only within very narrow limits to the human subjects. Nay, more. The results of clinical observation are altogether inconsistent in many cases with what these experiments would suggest; and yet how fruitful and full of promise does the territory seem from our present standpoint! Is it not one to which I may point encouragingly and ask you to explore it, and bid you, in Harvey's words, "search out its secrets by way of experiment"?

Let me briefly remind you of some of the facts which have been made out regarding these bodies. There can be little doubt that in some disorders these organisms, in their various forms, round, corkscrew, or straight-rod-shaped, are the causal connexion, the virus, of the disease. The bacilli are constantly present in the affected parts; the organisms have been cultivated outside the body and separated from all the morbid materials, and the disease has been produced by the introduction of these cultivated organisms into healthy animals. As examples of such disorders, we have, as described by Koch, anthrax or splenic fever, a septicæmia in mice due to bacteria, and a septicæmia in rabbits due to micrococci. After inoculating an animal with

the smallest drop of anthracic blood, provided it contains bacilli or their spores, it dies within twenty-four or thirty-six hours, and then in the capillaries of the liver, spleen, lungs, kidneys, and stomach incredible numbers of these bacilli can be seen permeating this portion of the vascular system; whilst in the larger vessels, even in the arteries and veins of an intestinal villus, they may be entirely absent or only seen at long intervals; and it is remarkable that in the capillaries of the brain, skin, muscle, and tongue there are fewer than elsewhere. The development of such numbers in so short a time appears almost incredible. The bacillus subtilis, however, which is not parasitic, but otherwise very much like bacillus anthracis in all respects, with a good supply of food and oxygen, and a temperature of 30° C. (86° F.), doubles its length, and divides once every thirty minutes, forming two separate organisms. By an easy calculation, therefore, we find that at the end of twenty-four hours the progeny of such a bacillus, increasing at such a rate, would amount to upwards of eight hundred millions of millions. In anthrax it would seem to be quite clear, then, that the bacillus will give rise to the disorder. There can be little doubt also that woolsorters' disease, malignant pustule, and intestinal anthrax in the human subject are developed from the same source.

As an example of a disease connected with a spirillum or spirochæta we have that of relapsing fever—a disorder in the spread of which it is certain that contagion from the sick or through the intervention of articles of daily use plays a very important part. During the febrile condition of the patient, a slender thread-like and twisted organism, which is never still, but always moving about in various directions, is found in great numbers in the blood—the Spirochæta Obermeieri—closely resembling Spirochæta Cohnii or plicatilis found in the mucus of the teeth, but innocuous. During the intervals between the febrile attacks none of these organisms can be detected in the blood. Outside the body they show active movements at a temperature of 60° or 70°, become languid at blood heat, and die at fever heat. The pyrexia, therefore, of the patient is supposed to destroy the organism, which then breaks up into a number of minute granules, some of which may constitute the spores from which fresh crops of the organism may develop. If blood is taken during the stage of pyrexia and containing spirochæta from a patient, and human beings or monkeys inoculated with it, the disease can be reproduced, but not by blood taken during the intervals between the febrile attacks. Injections of the blood into other animals, such as dogs, rabbits, and guinea-pigs, were always without result. All attempts to cultivate the organism outside the body have not as yet been successful, so that we really know very little of its history. Here, again, we have a disorder associated with a bacillus, the organism disappearing and reappearing from the system, and the blood of the infected animal being intermittent in its power of communicating the disease to other animals.

Perhaps few disorders of the human frame have greater interest attached to them than those associated with tubercle, and when we remember that one-seventh on an average of the deaths of human beings result from pulmonary tuberculosis the importance of any fresh light shed on this disorder, or the discovery of any new fact, cannot easily be overestimated. The discovery, then, by Koch in 1882 of a bacillus in the tubercular diseases of man and animals has necessarily attracted a good deal of attention and led to a good deal of discussion. These rod-shaped bacilli have been shown to exist, in all cases of human tuberculosis, in the sputum, in caseating scrofulous glands, and in the tubercular masses in the lungs. Pure cultivations of these bacilli, when introduced beneath the skin of susceptible animals, such as rabbits, guinea-pigs, cats, and field mice, always produce, after three, four, or more weeks, the typical tubercular lesions: swollen lymphatic glands, deposits in the spleen, liver, and lungs, and enlargement and caseation of the bronchial glands. Different species of animals present very different degrees of susceptibility: the domestic mouse is not easily affected, whereas the field mouse is highly susceptible; and, as every practical physician knows, in certain families of the human species there is an unmistakable liability, an in-born tendency, to suffer from tuberculosis, whereas other families entirely escape. Wherein lies this great difference of susceptibility? In what way do the micro-organisms, either in tuberculosis or anthrax or relapsing fever, influence the economy?—how do they produce the disease? Why should some animals resist their power and others be overwhelmed by them? Recent investigations seem to me to throw some light on these points, and in some degree to answer these questions.

When certain forms of bacilli, of the so-called non-pathogenic character, are introduced into the blood of the lower animals, even in large numbers, their existence is of comparatively short duration, and they speedily disappear. The living blood has the power of destroying them. In three hours, according to Wyssokowitsch, none are present, even though enormous numbers are injected. They are deposited in the liver, spleen, and medulla of bone, and soon die if they do not contain spores. If spores are injected, these live much longer than those of bacillus subtilis, being still alive after three months. But there is another way in which they are destroyed. "When bacteria are injected into the tissues, there follows a struggle for existence between them and the cellular elements. Leucocytes quickly accumulate in the neighbourhood of the mass of bacteria, and then there follows a fight for the mastery between these cells and the bacteria. The cells take up the bacteria into their interior, and where the bacteria are non-pathogenic for the anlmal employed they are destroyed" (Cheyne). The discovery of this is due to Metschnikoff. It is well known that the colourless blood cells possess the power of constantly changing their shape, exhibiting undulatory movements and alternate protrusion and retraction of processes; they are also able to take up and absorb solid bodies into their soft substance. "If the foreign body comes into contact with the surface of the cell, the latter puts out processes which embrace it and gradually close over it as the waves close over a drowning animal, so that it lies at last inside the soft cell substance. It may be cast out again at some future time, but it may also suffer decomposition inside the cell, be killed, and disappear." These well-known facts led Metschnikoff to investigate the behaviour of the colourless blood cells of the vertebrate animals towards the bacillus of anthrax. He found "that the virulent rods, when introduced by inoculation into an animal liable to take the fever, such as a rodent, were not absorbed by the blood cells, or only in exceptional instances. They were readily absorbed by the blood cells of animals not liable to the disease, as frogs and lizards, provided the temperature was not artificially raised, and then disappeared inside the cells. The same thing happened when susceptible animals were inoculated with bacillus anthracis which had been attenuated to the harmless state." Metschnikoff therefore assumed "that the bacillus is harmless because it is absorbed and destroyed by the blood cells, and injurious because this does not happen; or at least that it becomes harmless if the destruction by the blood cells takes place more rapidly and to a greater extent than the growth and multiplication of the bacillus; the converse being also true." If in the case of frogs the temperature be raised, "thus favouring the growth of the bacilli and at the same time lowering the vitality of the cells, the bacilli grow and penetrate into the circulating blood."

If, however, the bacilli, when introduced into the blood or into the tissues, are not destroyed by the colourless blood cells, or otherwise, but are such as are able to live in the blood or tissues of living animals, what is the nature of the change which they produce? It appears that among the products which result from the decomposition of organised matter and associated with the growth of bacteria certain chemical poisons appear which are capable of destroying animal life. We have long been familiar with the fact that the micrococcus or bacillus lacticus is the agent by which the lactic acid fermentation of the sugar contained in milk takes place, and this lactic acid, being then neutralised with lime or other substance, will after a time, through the agency of another micro-organism, probably the bacillus amylobacter, undergo a further change or fermentation, and be converted into butyric acid, with the simultaneous evolution of carbonic acid and hydrogen:—

$$2C_2H_4\begin{cases}OH\\COOH\end{cases}_{\text{lactic acid}} = C_3H_5 . COOH + 2CO_2 + 2H_2.$$
$$\text{butyric acid}$$

And there are other fermentations of a similar character. But it is only in recent times that it has been discovered that, as the result of albuminous or proteid decomposition or putrefaction, certain animal alkaloids are produced similar in their nature and in their chemical composition to the vegetable alkaloids. Some of these products, or

ptomaines as they are called, are innocuous, others possess poisonous properties varying in degree from the slighter forms to the most intense activity. Nearly seventy years ago Kerner pointed out the similarity of the effects produced by sausage poison to those produced by atropine, but the symptoms are slow in appearing; sometimes two, three, or four days may elapse before they manifest themselves. Dr. Alfred Swaine Taylor mentions the fact that in 1859 sixty-four persons suffered from the poisonous effects of a certain batch of sausages, only one case, however, proving fatal. Chemical analysis of the sausages yielded nothing of a poisonous nature, though there could be no doubt that they had caused the symptoms and death. The symptoms were—burning in the throat and stomach, followed by vomiting and purging, giddiness and confusion in the head, and in some cases delirium. It might now possibly be urged, with our present knowledge, that the symptoms arose from the formation of an animal alkaloid in the meat, developed through the agency of such an organism as Cohn's bacterium termo or Bienstock's drumstick bacillus. From partial decay, through the agency of Tyrothrix tenuis or some other bacteria, cheese sometimes acquires irritant properties, and will give rise to vomiting and purging more or less violent in those who have eaten it. Pickled or tinned salmon, salted herrings, and even fresh mussels, are examples of articles of diet which have caused poisonous symptoms in those who have partaken of them. In 1856 Panum showed that these effects were the result of some chemical poison developed in putrefying material. He subjected the fluids to prolonged boiling so as to destroy any living organisms, and on injecting it into animals the poisonous effects were still produced, though in a slighter form than from the unboiled fluid. Further, after filtering the fluid and boiling it for an hour, he evaporated it to dryness, then digested it with absolute alcohol, and treated the residue with boiling water. This watery extract also was poisonous. Some of these chemical substances or animal alkaloids were separated by Armand Gautier in 1872, and by Professor Selmi of Bologna, and named by him ptomaines. Professor Brieger has since succeeded in producing these bodies, and some not poisonous, in a crystalline form, and in determining their chemical composition. The following are some of them:—

Neuridin $C_5H_{14}N_2$, a non-poisonous alkaloid, is the one which is most constantly present at the commencement of putrefaction, and which appears in largest quantity. This substance can be split up into dimethylamine and trimethylamine.

$$\underset{\text{neuridin}}{C_5H_{14}N_2} + H_2 = \underset{\text{dimethylamine}}{NH(CH_3)_2} + \underset{\text{trimethylamine}}{N(CH_3)_3}$$

After the removal of this from putrefying flesh two poisons can be extracted, neurin $C_5H_{13}NO$ and cholin $C_5H_{15}NO_2$, differing only in composition by a molecule of H_2O, but the neurin being ten times more poisonous than cholin, which latter exists normally in the bile, and as a constituent of lecithin in the brain, and in yelk of egg. From putrefying fish and gelatine muscarine $C_5H_{15}NO_3$ is obtained—an alkaloid previously discovered by Schmiedeberg and Koppe as the poisonous agent in a disease of flies caused by a fungus, the Agaricus muscarius. Brieger also obtained other products from decomposing albuminous substances and human corpses—viz., ethylene diamine $C_2H_4(NH_2)_2$, gadinin $C_7H_{17}NO_2$, trimethylamine $N(CH_3)_3$, dimethylamine $NH(CH_3)_2$ and trimethylamine $N(C_2H_5)_3$, cadaverin $C_5H_{16}N_2$, putrescin $C_4H_{12}N_2$, saprin $C_5H_{16}N_2$ and mydalein; the amount of these substances obtained depending upon the stage of decomposition and the temperature at which it took place. I will not stop to describe the poisonous effects of these products on the system. For that I must refer you to Professor Brieger's publications or to Dr. A. M. Brown's treatise on the Animal Alkaloids. The point of interest is that they are developed during the process of putrefaction, in which bacilli take an active part; and probably it is from the development of these poisons that the effects on the animal system are produced when certain of the micro-organisms gain an entrance into it. It is to be observed that these poisons are developed by the action of bacilli on dead or effete animal matter, not necessarily on living tissue; and it might be suggested, therefore, that if they are produced from living tissues by the micro-organisms, this can only take place when the tissue has lost its so-called vitality, or when there is a departure in the tissue from the normal condition which constitutes health. But this will hardly apply to such a disorder as splenic fever, or even to tuberculosis in guinea-pigs &c., in which cases we have very clear evidence that the introduction of the pure cultivated micro-organism into healthy animals will produce the disease. This at once suggests the question, Can the apparently innocuous or non-pathogenic bacteria be so cultivated outside the body as to develop an intense virulence and become pathogenic—endowed, that is, with the power of growing and multiplying within a living animal? To this I will briefly refer later on.

Now, not only has it been demonstrated that certain poisons or ptomaines can be derived from dead putrefying animal substances, but, moreover, it has been shown by Gautier that certain alkaloids which he terms leucomaines, having poisonous properties, are formed within the living organism and independently of the action of bacteria—waste or effete débris—by the accumulation of which in the system the vital processes are arrested. As examples of these he gives betain, gnanin, xanthin, kreatinin, &c. The accumulation of these substances in the system is prevented either by their destruction by oxygenation, or by their elimination through the agency of the kidneys and liver. That products are formed in the living body which, if not eliminated, produce poisonous effects is well shown in cases, for example, of uræmia, gout, or diabetes. The majority of observers are of opinion that uræmia is not solely due to the effect of an excess of urea or of carbonate of ammonia in the blood, but to the poisonous action, in addition, of such substances as kreatin, kreatinin, and *other extractives* or waste materials which have accumulated in the system from defective excretion by the kidneys. In gout we have uric acid exerting its poisonous effects on the nervous centres, and modifying the nutrition of parts of the body. In diabetes we have not only in some cases the formation of glucose taking place in the system, even when saccharine and starchy foods are withheld, but we have also evidence of some abnormal molecular change in the constitution of the tissues, as shown by the marked tendency to carbuncle and to tuberculosis of the lungs. As the disease advances we have symptoms of drowsiness showing themselves, the result of some abnormal product in the blood acting on the nervous system; later on acetone appears in the urine, and, in general, not long after this stage has been reached death takes place. In the Croonian Lectures for 1886 I endeavoured to show that there were grounds for regarding living albuminous compounds as made up of certain cyan-alcohols united to a benzene nucleus; or, in other words, by combining hydrocyanic acid with a compound belonging to the benzene group, and with the five aldehydes—methylic, ethylic, propionic, butyric, and valeric,—a compound would be formed having the same ultimate composition as albumen; and also that a considerable number of the substances, such as glycocoll, lactic acid, leucine, &c., which are obtained from albuminous substances, could be prepared in the laboratory artificially from these cyan-alcohols. Assuming such a constitution for albumen, I indicated how, if the force, vital or otherwise, which held these molecules, forming living tissue, together were modified or lessened, so that the molecules, instead of undergoing the normal changes, fell asunder and were partially oxidised, such substances would be produced as glucose from methylic cyan-alcohol, lactic acid and para-aldehyde from the next in the series, and oxybutyric acid and acetone from a third. I refer to this here, because the same assumption as to the constitution of albuminous material helps to explain the origin and formation of Brieger's ptomaines. From the lowest cyan-alcohol in the series, $CH_2\begin{cases}OH\\CN,\end{cases}$ glycocoll $CH_2\begin{cases}NH_2\\COOH\end{cases}$ should be obtained, which under certain conditions splits up into carbonic acid and methylamine $NH_2(CH_3)$. This methylamine may under certain circumstances form dimethylamine $NH(CH_3)_2$ and trimethylamine $N(CH_3)_3$, the two substances into which neuridin (the alkaloid which is the first to be separated from putrefying meat) can be decomposed. The following equation then would represent the origin of neuridin:—

$$\underset{\text{glycocoll}}{5CH_2(NH_2)COOH} = \underset{\text{neuridin}}{C_5H_{14}N_2} + 5CO_2 + 3NH_3 + H_2$$

If we take now trimethylamine and combine it with the next cyan-alcohol in the series, the ethylic, cholin should be the result:—

$$\underset{\text{trimethylamine}}{N(CH_3)_3} + \underset{\text{ethylic cyan-alcohol}}{C_2H_4\begin{cases}OH\\CN\end{cases}} + H_2O = C_2H_4\begin{cases}OH\\\underset{\text{cholin}}{N(CH_3)_3OH}\end{cases} + HCN$$

for cholin has been formed synthetically in the laboratory by heating ethylene chlorhydrin $C_2H_4\begin{cases}OH\\Cl\end{cases}$ with trimethylamine, and the same reaction should hold good for the cyan-hydrin or cyan-alcohol. Neurin differs from cholin by H_2O, and the former can be obtained by heating cholin with hydriodic acid and then acting upon it with moist silver oxide:—

$$\underset{\text{cholin}}{C_2H_4\begin{cases}HO\\N(CH_3)_3HO\end{cases}} = \underset{\text{neurin}}{C_2H_3\begin{cases}OH\\N(CH_3)_3\end{cases}} + H_2O$$

By oxidising cholin (by gently heating its hydrochloride or platino-chloride with strong nitric acid) we obtain muscarine:—

$$\underset{\text{cholin}}{C_2N_4\begin{cases}HO\\N(CH_3)_3HO\end{cases}} + O = CH_2 . CH\underset{\text{muscarine hydroxide}}{\begin{cases}(OH)_2\\N . (CH_3)_3OH\end{cases}}$$

Oxidised in a different fashion cholin is converted into betain, the alkaloid of beetroot:—

$$\underset{\text{cholin}}{C_2H_4\begin{cases}HO\\N(CH_3)_3HO\end{cases}} + O = CH_2\underset{\text{betain}}{\begin{cases}CO\\N(CH_3)_3O\end{cases}} + H_2O$$

a substance which has also been found by Liebreich in the human urine. Such facts as these lend some support to the view which I have advanced as to the constitution of albumen, and I mention them here in order again to call the attention of those interested in chemical physiology to the close relationship which exists between these compounds of prussic acid with the various aldehydes, or the cyan-alcohols, and the different substances which can be extracted from albuminous tissues.

Let me now return from this digression. From the data which I have placed before you, I wish to draw the inference that in the living animal organisms, owing to slight departures from the normal nutrition of parts, arising probably through nervous agency—the trophic nerves,—various substances, such as extractives or alkaloids, will be produced, which, if not eliminated or neutralised, will lead to pathological changes in the system, absolutely and entirely independently of any bacterial action. As an illustration, I would refer to the pyrexia or fever which, even in healthy individuals, may follow over-exertion or excessive fatigue, and which is still more readily developed in convalescents or in persons who are not very strong. Sir William Aitken has directed special attention to this condition, "which is constantly seen in all forms of physical over-taxation or over-exertion, as in a prolonged march or by excessive drill, especially in young and adolescent soldiers"; and he refers to the investigations made by Prof. Angelo Mosso of Turin on the physiology of fatigue as developed in the soldiers of the Italian army, and the pathological manifestations which accompany it. "Fatigue carried beyond the moderate stage, at which it is decidedly beneficial, subjects the blood to a decomposing process through the infiltration into it of substances which act as poisons—substances which, when injected into the circulation of healthy animals, induce malaise and all the signs of excessive exhaustion."

In convalescence from disease, too, how readily does the evening temperature rise after any slight physical exertion; and at the commencement of typhoid fever perhaps nothing tends to intensify the severity of the attack so much as physical fatigue. It would seem in this case as if the soil for the cultivation of the fever germ was materially enriched by the products of disintegration. In "fatigue fever" these products are formed more rapidly than they can be eliminated or neutralised. With rest the febrile condition soon passes off, if the individual is otherwise healthy. Now it appears to be the function of certain glands besides the liver and kidneys to get rid of the poisonous products resulting from the disintegration of the tissues, either by neutralising or decomposing them, or otherwise. If the action of the glands is checked or modified either by disease or by their removal, then the poisonous material soon begins to exert its specific effect on the system. We have recently been taught that following upon disease or removal of the thyroid gland the condition known as myxœdema, with all its attendant phenomena, arises. Again, in disease of the suprarenal capsules "effete pigments and effete proteids circulate in the blood, the former or their incomplete metabolites producing pigmentation of skin and mucous membrane, and appearing often in the urine as urohæmatoporphyrin; the latter producing toxic effects, and leading to further deterioration of the blood with its consequences" (McMunn). If, then, from any cause due to glandular, nervous, or other derangement in the system, these poisonous substances are developed or not eliminated, they will alter the composition and constitution of the blood; the white corpuscles may be destroyed, or their movements enfeebled, and, by any such changes, the blood, which previously could resist the attacks of the various parasitic micro-organisms, is so modified as to render it a suitable soil in which these organisms may develop and thrive. This view is confirmed by the experiments of Rossbach and Rosenberger, who found that when papain or sterilised septic blood was injected into the vessels micrococci developed in the blood with extraordinary rapidity; the blood, that is to say, was so modified in character that the micrococci which could gain no entrance previous to the injection of papain, afterwards found a congenial soil for their development.

We may take another illustration from the process of fermentation. By fermentation sugar can be converted into carbonic acid and alcohol; but a pure saccharine solution does not ferment on the addition of a small quantity of fungi or bacteria in a pure state. Some nitrogenous material must be added as well, to act as food to the organisms, and then the transformation into carbonic acid and alcohol commences. That it is only in particular conditions of a tissue, or at special times in its growth, that it furnishes suitable soil for the growth of the bacilli is shown by the following illustration from the vegetable world furnished by De Bary:—"The common garden cress Lepidium sativum is often attacked by a parasitic fungus of comparatively large size, Cystopus candidus. In consequence of this it shows considerable degeneration, swellings, curvatures of the stem, and often also of the fruits, and on these parts and on the leaves white spots and pustules, subsequently turning to dust, which are formed by the sporogenous organs of the Cystopus, and give the entire phenomenon the name of the white rust in cress. This is a case of disease, and so striking that everyone notices it at once with the naked eye. Now we find in a bed of cress at about flowering time a certain number of rusty plants—two, for example, or twenty. They are in the middle of the other hundred or thousand plants, and these are healthy and free from the fungus, and continue so till the period of vegetation is at an end. This is the case, though the cystopus forms countless spores in the white rust pustules, and the spores are dispersed as dust and are at once capable of germination, finding the necessary conditions for their further development in the bed of cress, and are the instruments by which the white rust disease is eminently infectious. Nevertheless, those hundred or thousand plants are not infected. All that has been hitherto said is strictly correct, and, if we limit our view to this, we shall see in the phenomena which have been described a conspicuous case of individual difference in predisposition; a case, too, perhaps, if we judge hastily, of sickly predisposition in the plants attacked, for they do become sick and the others do not. And yet this is not the true account of the matter. Every healthy cress plant is equally liable to the attacks of the cystopus and to the rust disease which it causes, only the liability is confined to a certain stage of the development, and ceases once for all when that stage is past. The germinating cress plant, in effect, first unfolds two small three-lobed leaves, the seed leaves or cotyledons; when it has grown a little further and formed more foliage leaves, the cotyledons wither and drop off. It appears, then, that the germ tubes of the fungus of white rust find their way into all the cotyledons, and are able to develop there; and if this development has once begun, the fungus establishes itself at once in the tissue into which it has penetrated, and grows on, in, and with the growing plant, and produces the disease. The germ tubes of cystopus may, indeed, make their way for a short distance into all the other parts of the plant, but are unable to establish themselves inside it and continue their development. The plant is for the future safe from the attacks of the parasite as soon as the cotyledons have fallen off. The two or the twenty rusted plants in the bed are the ones in which the fungus attacked the cotyledons in good time; if it had attacked the thousand others in equally good time, all would have been rusted. They continued healthy,

because they were not infected in the stage in which they were open to infection—that is, predisposed."

We may take another example from the human subject. Ringworm of the scalp due to the fungus Trichophyton tonsurans is not infrequently seen in children under sixteen years of age; but after that age, though the fungus may affect other parts of the body, the scalp is generally free from it. Some change has taken place in the tissue there, which makes it less suitable for the growth of the parasite.

Now, may not the function of the glands to which I have just now alluded—viz., that of destroying or neutralising effete or toxic products formed in the system—have some bearing upon the development of tuberculosis? Thirty years ago it was suggested by Buhl that in the human subject acute miliary tuberculosis was due to the absorption into the blood of caseous matters from various sources. "It afterwards became the fashion to regard tubercle as always a secondary product, the origin of which was sought for in 'caseous foci' of which the formation was supposed to precede, in all cases, the development of tuberculous lesions. ..... The acute tuberculosis of children was traced back in a large number of instances to a simple intestinal or bronchial catarrh; this was supposed to lead first to swelling of the corresponding abdominal or thoracic lymph glands, and then to their caseation; and when once caseation had commenced, the conditions for the development of tubercle were assumed to be present." But, says Dr. Hilton Fagge, whom I have just quoted, "nothing is more certain than that in man the inspissated pus of a common abscess, or the caseous matter of an atheromatous artery, or of a degenerating new growth or gumma, does *not* produce tuberculosis." We may neglect, then, the consideration of these caseous glands as "caseous foci," and yet their existence antecedent to or associated with tuberculosis is so general that to the mind of the practical physician it would seem as if there must be some distinct relationship as to cause and effect between them.

May I venture to offer an interpretation of the fact? Suppose that in an individual we have such a condition of the glands either inherited or acquired, such a "vulnerability," so to speak, that from more or less slight irritation of the mucous membrane of the throat, of the lungs, or of the intestines, the glands in connexion with those parts become enlarged and inflamed, and, instead of recovering, become caseous. These organs then would no longer be able to perform their function, whatever that function may be; and if it be that of modifying or destroying the effete material coming to them as the result of normal changes in the mucous membrane, this effete material must pass on into the circulation generally, and produce its noxious effects—lessen, it may be, the vitality of the white blood corpuscles, or the epithelial or endothelial cells, or so modify the condition of the blood that the tubercular bacillus finds a suitable soil in which to develop and flourish. Or it may be that these poisonous substances act specially as irritants of epithelial structure, causing an overgrowth of epithelial cells, just as we know will be the result when any other irritant is applied to these tissues; and so the soil is prepared for the lodgment of the bacillus. The human body in the normal state of things may be able to destroy the bacillus tuberculosis, just as the white corpuscles of the frog in Metschnikoff's experiment could destroy the bacillus anthracis, but not when placed in abnormal conditions. In connexion with this view of the matter, it is significant to find in the case of animals inoculated with tubercle that the lymph glands in the neighbourhood of the inoculation become enlarged and caseous, and this precedes general tuberculosis by a longer or a shorter time. Nor would I maintain that the loss of function caused by the swelling and caseation of the various glands was the only way in which the tissue soil could be prepared for the reception of the bacilli. If, as I urge, tissue in a state of decay is suitable, I would suggest that imperfectly formed tissue would furnish equally suitable food for these parasites—such tissue as would result from living in a close atmosphere, with poor and insufficient food and insufficient exercise. We could not imagine any conditions better calculated than these I have just mentioned to lower the activity or vitality of the epithelial cells of the pulmonary alveoli, or to interfere with the perfect organisation of the tissues generally, or to conduce more effectively to the accumulation of waste or effete material in the circulation, or to impede generally the action of the glandular structures, whereby these waste products should be rendered innocuous; and no wonder that under these conditions the tubercle bacillus finds a congenial home, in which it spreads and thrives and multiplies.

Again, the condition often seen in some parts antecedent to the formation of tubercles in the human system indicates that there is often some structural change before the bacilli take possession of the part, and that "their appearance on the scene is subsequent to the damage of which they are, in fact, the pathological consequences." Not infrequently in cases of acute tuberculosis of other organs we find an affection of the membranes of the brain presenting all the characters of simple inflammation, no tubercles being discoverable. And in the lungs the first stage of the morbid process is of a similar character—namely, the filling of the alveoli with epithelial cells, or, in other words, a "catarrhal pneumonia." And according to the vitality of these epithelial cells will be the changes produced in them by the bacilli. Some of the cells possessing greater vitality will, when attacked by the bacilli, go on increasing or coalescing, and so in some way or other the formation of the so-called "giant cells" takes place, which at one time were regarded as the typical elements of tubercle, and the remarkable phagocyte property of which has been recently shown by Metschnikoff to be something more than a theory. If the cells are of a weaker nature they quickly die and undergo degeneration, and become caseous.

And, once again, it may be suggested that when the bacilli have gained a footing in this effete or enfeebled tissue, whilst absorbing from it the constituents of their own protoplasm they may give rise to or secrete poisonous products or ferments capable of still further destroying or weakening the surrounding tissue or cellular elements, and so obtain fresh food on which they can thrive. In this way, to use Dr. Sanderson's words, "germs are not so much 'mischief makers' as mischief spreaders; that is to say, that although an inflammation may come into existence without their aid, their presence communicates to it after it has come into existence the power of reproducing itself in previously healthy tissues, whether by extension or dissemination." Sometimes, however, even though the tubercle bacilli establish themselves in the tissue, the epithelial cells may become strong enough to resist their further invasion and destroy them. The bacilli disappear, and a "fibrous tubercle" containing giant cells but no bacilli is left behind as evidence of the flight which has taken place. And does not this fact furnish us with our most important lesson?—viz., that in the prevention and treatment of consumptive mischief our aim must be not so much to fight against the bacillus as to strengthen the parts attacked; to improve, that is, the condition of the blood and of the cellular elements by suitable dietetic, hygienic, and medicinal means. And is not this in accordance with sound practical experience? That the tubercle bacillus will communicate the disease under ordinary circumstances to healthy individuals cannot for one moment be admitted. The statistics compiled by Drs. Cotton and Theodore Williams and Mr. Edwards from the records of the Brompton Hospital, relating to several hundreds of individuals subjected more or less to contact and association with consumptive patients for three months and upwards, directly negative any idea of consumption being, in the ordinary sense of the word, an infectious disease. And, therefore, if a healthy human system can resist the invasion of the bacillus, surely the common-sense view of preventing its invasion or arresting its progress must be to adopt such measures as will tend to the development of healthy tissue. That the internal administration of cod-liver oil is of great service generally in the treatment of phthisis few, I think, will deny, and the same may be said of the free use of butter as an article of diet, the latter sometimes even appearing to answer better than the cod-liver oil, and is certainly more willingly taken. But what possible effect can these have on the bacilli? Indeed, I fear the discovery of the tubercle bacillus has not proved in some respects to be an unmixed benefit, and that, by treating patients in various ways by antiseptic remedies, the result has been that the patient, and not the bacillus, has succumbed.

Lastly, there is one important point to refer to in connexion with these micro-organisms. We are surrounded on all sides with certain forms of them which under ordinary circumstances produce no injurious effects on the human frame, living only as saprophytes on dead animal or vegetable matter. Can these harmless organisms under any mode of cultivation acquire virulent or poisonous properties enabling them to attack living animal matter? Can the common

bacillus of hay infusion, the bacillus subtilis, be transformed into the bacillus anthracis? Or, putting the question more generally, can a specific disease arise *de novo?* Pathologists and bacteriologists differ strongly on this point. Buchner says that the transmutation of the hay bacillus into the bacillus anthracis does take place. Koch and Klein say it is impossible. All admit that the bacillus anthracis, if cultivated outside the human body artificially, at a certain temperature, can have its properties so modified that it ceases to be poisonous, and after six weeks' attenuation can then be injected into the blood of a living animal without producing any injurious effects: rabbits resisting the injurious effects at an early stage of attenuation; later, guinea-pigs; while it is only after the parasite has been cultivated for a period somewhat less than six weeks that mice seem to be impervious to its attacks. But how it is that this attenuation takes place—whether it is due to the effect of heat alone or to the effect of oxygen—bacteriologists are by no means agreed. Further, it has been shown that when the attenuation of the bacillus has been brought about in a certain way (by the addition, for instance, of carbolic acid or potassium bichromate to the cultivation) its virulence is not regained when cultivated in fresh material at the ordinary temperature. But, attenuated in a different fashion, it does regain its virulence under those conditions. Again, the virulence of a parasitic organism is materially altered according to the animal through which it has been transmitted. "In the course of Pasteur's interesting researches on swine plague he found that pigeons inoculated with the virus of swine plague died in six or eight days, after suffering in the first instance from symptoms like those of fowl cholera. If the disease is transmitted from pigeon to pigeon, the organism after a time acts more violently, and the animal dies sooner. If, now, pigs are inoculated from these pigeons death occurs more quickly than when inoculated from a pig, the organism having become more virulent. With the rabbit the converse is the case. The virus kills rabbits, but if it is passed through a series of rabbits it is no longer able to kill pigs." (Watson Cheyne.)

Now, if this is the case—if the virulence of parasitic or pathogenic organisms can be thus modified,—it seems incredible that organisms of similar structure, though apparently harmless saprophytes, cannot be cultivated in some way or other so as to become pathogenic. And when the bacteriologists tell us that it is impossible, that only means, I suppose, that they have not yet discovered the way. Specific diseases and pathogenic bacteria can hardly have existed from the foundation of the world; they must each have had their power of development, and what has developed through one period of time may be developed again under similar circumstances. This may require a combination of circumstances acting simultaneously. Each circumstance separately may be in frequent action, but the necessary combination may present itself very rarely. A certain temperature and a special pabulum—a product, perhaps, of a certain stage of putrefaction—may be the first requisites to develop the pathogenic power of the bacterium; it may then require a special condition of the living animal organism, a lowered vitality, or an enfeebled state of health—the result, perhaps, of the same conditions of air, soil, temperature, &c., which have called forth the power of the parasite—before it can find an entrance; and possibly after that its transmission through different species of animals may be necessary before it acquires destructive virulence, and is able, like the bacillus anthracis, to attack sound and healthy tissue. Instances are not rare of vegetable cells possessing poisonous properties at one time and not at another. Nägeli has called attention to one of the most striking, which is thus described by De Bary: "The bitter almond tree is poisonous from the amount of amygdalin it contains, though it is not very dangerous to human beings; the sweet almond contains no amygdalin, and is not poisonous. The sweet almond tree does not differ specifically from the bitter; a tree with bitter seeds may be produced from a sweet seed; bitter and sweet seeds may even be borne on the same tree in flowers and fruits not morphologically distinguishable from each other." What the origin or cause of this difference is has not yet been discovered, and no explanation can as yet be offered; but the fact will help us to understand that cells may be developed by these micro-organisms capable of producing very different effects upon the system; and I incline therefore to the view that, probably from the simple neglect of ordinary sanitary measures, innocuous micro-organisms may become virulent, and that diseases may arise *de novo*.

I have, however, detained you already too long with these speculations, and will not proceed further with them, tempting and important though the subject may be. One thing is clear and certain: there is very distinct evidence showing a relation between bacteria and certain diseases both in man and animals; but what the exact *modus operandi* is in the production of the disease can only be learned from further investigation; and additional study may throw a very different light on the relationship of these organisms to the respective maladies from that in which it may now be regarded. Whether this will be so or not, it seems to me that with increasing knowledge of the chemical changes in the blood and in the tissues, we are on the threshold of most important discoveries, and of a very marked advance in the science of medicine. That physiologists are recognising in a greater degree than formerly the importance—nay, the absolute necessity—of further acquaintance with chemical physiology is shown in a marked way by the appearance of such works as those of Gamgee and Charles, and especially that most recent and most valuable one of McKendrick. Perhaps by further investigations into the chemical changes produced by bacilli, the constitution of the proteid molecule, complex as its nature is now regarded, may be unravelled and its properties better understood; we may be able to discover, possibly, what poison it is which the bacillus secretes, or how it is formed, or from what constituent of the proteid molecule it is derived. The other constituents of the molecule may perhaps furnish the antidote, or a poison antagonistic to that produced by the bacillus; for we know that poisons are antagonistic to each other—atropine and muscarine for example. We may even hope to find that the action and growth of the bacilli may be inhibited by certain substances, and then by injecting these substances into the blood disease may be prevented, or if disease exists it may be arrested or cured. Is there not, then, in this direction much that should attract you, and, in Harvey's words, "encourage you to search out the secrets of nature"? The changes seem so minute and inscrutable, sometimes so transitory, that amidst difficulties and disappointments we may often be discouraged and inclined to abandon the investigations. So it was with Harvey: "I found the task so truly arduous, so full of difficulties, that I was almost tempted to think, with Fracastorius, that the motion of the heart was only to be comprehended by God.....At length by using greater and daily diligence.....I thought that I had attained the truth.....and that I had discovered what I so much desired, both the motion and the use of the heart and arteries." Reverently, earnestly, and hopefully he continued his work, and succeeded. Let us follow in his footsteps, gathering up the facts, and, with minds educated and trained to reason upon the facts, try to penetrate further into nature's mysteries; and thus may we be enabled to do God's work in the world by preventing and healing all manner of diseases, and so promoting the happiness and welfare of mankind. One, whose memory is reverenced by all here, Dr. Parkes, wrote: "In the scheme of Providence it may not be meant that man shall be healthy. Diseases of mind and body may be the cross he has to bear, or it may be the evil against which he has to struggle, and whose shackles he has finally to unloose. The last disease will disappear, we may believe, only when man is perfect; and as in the presence of the Saviour all disease was healed, so, before perfect virtue, sorrow and suffering shall fade away. Whether the world is ever to see such a consummation no man can say; but as ages roll on, hope does in some measure grow. In the midst of all our weaknesses and all our many errors, we are certainly gaining knowledge, and that knowledge tells us, in no doubtful terms, that the fate of man is in his own hands." Let us hopefully strive to increase that knowledge, and so help, each one, to hasten on the time, far distant though it yet appears, when the last disease will disappear and man be perfect; when "there shall be no more death, neither sorrow nor crying, neither shall there be any more pain: for the former things are passed away."

HOSPITAL SUNDAY AND SATURDAY PROVINCIAL COLLECTIONS.—The Basingstoke Hospital Sunday collection on the 8th inst., in aid of the Basingstoke Cottage Hospital, amounted to £35 7*s.* 2*d.* The Hospital Sunday collection at Ware on the 8th inst., on behalf of the Hertford Infirmary and Herts Convalescent Homes, produced £20.

ABSTRACT OF A

Lecture

INTRODUCTORY TO THE

COURSE OF SURGERY,

Delivered on October 2nd, 1888,

BY WILLIAM ROSE, M.B., B.S., F.R.C.S.,
PROFESSOR OF SURGERY AT KING'S COLLEGE.

MR. ROSE commenced by expressing his keen appreciation of the honour conferred upon him by the Council in electing him to such an important post as Professor of Surgery, and assured his hearers that he felt deeply the grave responsibilities which he had undertaken, whilst he expressed his earnest wish that he might be enabled to acquit himself creditably, maintain the honour of the chair, and prove worthy of the trust reposed in him. He said that it was only natural that, in thinking over a few topics as appropriate subjects for his introductory remarks, his thoughts should be directed to those who had preceded him in the chair of Surgery at King's College, particularly those with whom he had been associated during his student career. He referred, in the first place, to the late Sir William Fergusson, the first occupant of the chair within his recollection, and for whose memory he, in common with many others, entertained the deepest respect and affection; from whose clinical experience they had learned so much, and under whom he had had the privilege and happiness of working for many years, and of witnessing his extraordinary skill and coolness as an operator.

After reminding his hearers of the brilliant operations that were performed in those days in the theatre at King's College Hospital, the birthplace and nursery of many of the now recognised major operations, referring more particularly to excisions of joints, removal of formidable growths involving the maxillæ, the scapula, &c., Mr. Rose alluded to the fact that a successful result was frequently marred in consequence of the prevalence of those terrible diseases, pyæmia and septicæmia, which at that time haunted the surgical wards, to which subject he would allude presently.

He then spoke of his immediate predecessor, Mr. Henry Smith, now Emeritus Professor of Surgery, whose friendship he had enjoyed for a period of twenty-one years, and for whose kindness, example, and assistance he expressed himself in terms of warm gratitude. He took this opportunity of expressing on his own behalf and that of his old pupils, their obligation to him for the work of his life, and their sincere wishes for his prolonged health and happiness in his retirement from active hospital work.

The lecturer next referred to the time when Mr. John Wood held the chair of Surgery, and spoke warmly of the advantages he had personally derived from attending his demonstrations of anatomy as well as his surgical lectures. He reminded his hearers that it was in 1870 that Mr. John Wood, on his assumption of the charge of surgical beds at the hospital, began to devote his attention to the antiseptic treatment of wounds, and thus brought about a great revolution in the surgical statistics of the institution, so that when the great master of asepticism joined the staff in 1877 he found his new colleagues to some extent versed in the principles, and ready to follow out under his guidance all the details, of his system of antiseptics.

In enumerating the advances which had been made in the art of surgery during the last twenty-one years, the lecturer drew attention to the improvement which had taken place in the knowledge and administration of anæsthetics, the use of which had produced a marked effect upon the method of operating. While formerly there was an ever-present apprehension in the mind of surgeons which frequently caused operations to be somewhat hurriedly performed, and many without any anæsthetic at all, in the present day operations are conducted with greater deliberation, and careful precision has taken the place of the rapid dexterity so necessary in pre-chloroform days. On the other hand, he pointed out the great importance of guarding against a possible tendency to unnecessarily protract the period during which the patient is kept under the influence of an anæsthetic. But the most conspicuous element of all in the history of modern surgical progress was the general acceptance and diffusion of the principles of antiseptics promulgated by Professor Lister—principles which had given the surgeon a new and solid foundation on which to work with safety, as well as confidence to perform operations in regions of the body formerly considered beyond the reach of surgical skill. He instanced more particularly the surgery of the brain, spinal cord, kidney, and stomach, and the modern treatment of diseases and injuries of joints; adding that in these departments alone a great field was open for further investigation and practical research.

Mr. Rose concluded his remarks by a few words to those who would form his class in the ensuing session, upon whom he impressed the importance of punctuality and regular attendance. He explained to them that the great object in lectures and demonstrations was not to supersede reading and practical work, but to assist the student in these exercises, by explaining principles and illustrating facts, and in this way fixing them upon the mind more indelibly. He advised them to read up, in a recognised text-book, the subject of the lecture, if possible, both before and after, comparing the brief notes made during the lecture with the descriptions in the manual; in this way they would be enabled to retain facts which might otherwise slip from their grasp.

SHAKSPERE AND THE PIA MATER, WITH A NOTE ON THE ORIGINALITY OF HARVEY.

BY BENJAMIN WARD RICHARDSON, M.D., F.R.S.

THE mode in which William Shakspere obtained his knowledge about the pia mater is, I think, fairly explainable from a curious literary discovery which I was so fortunate as to drop upon, in my readings, a few months ago. I came across a large volume of anatomy published in the year 1615 by Helkiah Crooke. It may be said, without hesitation, that this compendious volume was the first great work in anatomy ever published in the English tongue. It fills 1111 pages of imperial quarto size, closely printed, and it is illustrated throughout by drawings on wood of anatomical subjects. Such a book would cost the most industrious writer even in these days several years to compile and bring out, and, I should think, did cost at least fifteen to twenty years of labour. It contains not only anatomy pure and simple, but various passages of a physiological and psychological nature which had descended from Aristotle and Galen, with references also to the Pythagorean controversies and other subjects of metaphysical cast. The book is one we may speak well of, although it is really nothing more than an industrious compilation from Gasper Bauhinus and Andreas Laurentius; and, in so far as the plates are concerned, from Vesalius out and out, being, in point of fact, a kind of new edition of the anatomical compendium of Geminus which that systematic plagiarist from Vesalius printed, published, and dedicated to Queen Elizabeth in the year 1559.

In the volume of Crooke the membranes of the brain are well defined and described, the *pia mater* takes a very distinct place, and the brain and cerebro-spinal system are figured with a clearness which would excite no small degree of wonder in one who for the first time studied them even in this day.

What connexion has the book of anatomy by Helkiah Crooke with the plays of Shakspere?

This remarkable connexion: that the man who printed the works of Crooke was W. Jaggard, of the Barbican in London, the same man who was the printer for Shakspere. Within easiest walking distance from the Globe Theatre, the scene of the great William's managerial glory, was the printing office of Jaggard, where the plates and letterpress of Crooke would for long seasons be the most remarkable press works of the time. To that office the indefatigable playwright would often be drawn by his own business, and there he would hardly fail to see unfolded before him the anatomy of man from a sure source, and just in the form that would most readily appeal to his ever-absorbing mind.

In this school of anatomy ready prepared for his hand, our immortal dramatist learned, as I believe, the fact of the existence of the pia mater, saw the drawing of it, and learned the function of it as the feeding mother of the brain. I might go a long way further in exposition of the source of Shakspere's anatomical knowledge generally, for the closer this book of anatomy and the book of plays are read together the more clearly is it detected where and how the dramatist became the student of anatomy. But at this moment I am content to stop with the proposition placed before the reader, that the pia mater argument of Shakspere was simply derived from the work and plates of his industrious contemporary, Helkiah Crooke, "doctor of physic, physitian to his Majesty and his Highness, and professor in anatomy and chirurgery."

NOTE ON THE ORIGINALITY OF HARVEY.

Before I conclude I am forced, however, *à propos* of this work of Crooke, to say a word about Harvey in stronger vindication of his claim to originality than has perhaps ever before been found. This book on anatomy by the most competent authority of his day barely predates the Harveian discovery of the circulation. It brings up the known anatomy of the arterial and venous systems to the latest point before the discovery. It describes the valves in the veins, after Aquapendente, with exactitude. It contains a drawing which one is bound to confess Harvey must have seen, and which it would have been well for him to have acknowledged as from a previous master. But with all this there is not a word in Crooke about the circulation of the blood as Harvey afterwards explained it. Crooke believes that the heart and the arteries do not keep the same time in their pulsations; and he says of the arteries that:—

"*When they are dilated they snatch from the heart spirits as a new matter which in their contraction they communicate to the particular parts to be a vehicle of the heat, and do assume out of the neighbouring veines natural blood for their proper nourishment by the inoculations which are betwixt them and the veines, and that is the reason why the veines and the arteries do walk together throughout the whole body unlesse some great obstacle be in the way.*"

The above passage was published in the year 1615. How far it lies from the true reading of the circulation of the blood let anyone say. In that self-same year Harvey began to demonstrate his view of the subject in his lectures before the Royal College of Physicians. How new that exposition must have been to those who had the latest and most comprehensive work on anatomy in their hands let anyone also say.

Manchester-square, W., Oct. 15th, 1888.

THE CONSTITUTIONAL CHARACTERISTICS OF DWELLERS IN LARGE TOWNS AS RELATING TO DEGENERACY.[1]

BY G. B. BARRON, M.D.

A PAPER was read last year at Manchester on "The Effects of Town Life upon the Human Body," by the late Dr. Milner Fothergill. The subject created an interesting discussion, exception being taken to some of his propositions. Degeneracy of race in town dwellers is still an unsolved problem, and anything that can be said in elucidation of the question is serviceable in an anthropological sense.

It may be readily supposed that the conditions of life and their general surroundings must largely influence and materially affect the physical or constitutional characteristics of town dwellers. At the onset, then, I venture to advance the proposition that the "vital force" of the town dweller is inferior to the "vital force" of the countryman. The evidence of this is to be found in a variety of ways. The general unfitness and incapability of the dwellers in our large hives of industry to undergo continued violent exertion or to sustain long endurance of fatigue is a fact requiring little evidence to establish; nor can they tolerate the withdrawal of food under sustained physical effort for any prolonged period as compared with the dwellers in rural districts. It may be affirmed also that, through the various factors at work night and day upon the constitution of the poorer class of town dwellers, various forms of disease are developed, of which pulmonary consumption is the most familiar, and which is doing its fatal work in a lavish and unerring fashion. Thus it may be conceded as an established fact that the townsman is, on the whole, constitutionally dwarfed in tone, and his life, man for man, shorter, weaker, and more uncertain than the countryman's. I hold the opinion that the deterioration is more in physique, as implied in the loss of physical or muscular power of the body, the attenuation of muscular fibre, the loss of integrity of cell structure, and consequent liability to the invasion of disease, rather than in actual stature of inch measurement. The true causes of this deterioration are neither very obscure nor far to seek. They are *bad air* and *bad habits*. To these may be added a prolific factor operating largely to produce degeneration of race, and that is, *frequent intermarriage*, often necessitated by religious affinities.

Taking these causes in the order in which I have placed them, but without reference to their relative intensity, I think *bad air* is a potent factor of enfeeblement. Included in the phrase "bad air" are bad sanitation and overcrowding. I have no doubt on my mind it has a powerful and never-ceasing action, paramount and decisive, on the physical frames of young and old town dwellers, producing deterioration of physique, lowered vitality, and constitutional decay. For over thirty years I have been hammering away at this question of "bad air" and "bad sanitation" as the prime causes of impairment of health and race, and the more I consider it the more I am convinced of the soundness of my conclusions. A great deal has been said on this subject, and it is not difficult to adduce conclusive evidence from a large variety of reliable sources in proof of the deleterious effects of impure air on the animal economy. Consumption is the best type of degenerative action and loss of vital energy. It stands out in bold relief as the disease most rife wherever foul air exists. The significance and value of fresh air was recognised by the old fathers of medicine. Hippocrates was accustomed to advise a walk in fresh air of ten or fifteen miles daily. Aretæus, Celsus, and Pliny speak of the good effect of fresh air; and our great English physician, Sydenham, did the same thing. Dr. Guy found that of 104 compositors who worked in rooms of less than 500 cubic feet of air for each person, 12·5 per cent. had had spitting of blood; of 115 in rooms of from 500 to 600 cubic feet, 4·35 per cent. showed signs of consumption; and in 100 who worked in rooms of more than 600 cubic feet capacity, less than 2 per cent. had spat blood. Consumption is only one of the long list of evils to which the town dweller is exposed. But it is not desirable to particularise all the medical features of this question; their name is legion. It may be well to mention that the Labrador fishermen and the fishermen of the Hebrides, with plenty of fresh air, are practically exempt from this disease. The absence of pure air acts upon the animal economy in much the same way as the withdrawal of light on plants, the result being pallor and feebleness of constitutional vigour. This effect ramifies in every direction; the tissues of which the human body is composed lose their tonicity and contractile power, and even mental integrity may be more or less affected. The pent-up denizens of the courts and alleys of our large towns, surrounded on every side by imperfect light, bad air, and the general aspects of low life, necessarily degenerate in physical competency, and their offspring is of a feeble type. Fortunately, one antidote is to be found in the nomadic instincts of such offspring. Better the gutter life and street Arab gymnastics than the sickly incapability of a pent-up cellar child. When people are huddled together in badly ventilated hovels and narrow courts, compelled to live almost without light and air, the effects are soon made clear. The unsavoury courts and slums of our large towns cannot but be productive of a lowered vital force and impoverished physique. The fact must not be overlooked that there are two classes of town dwellers: one being those who dwell for a limited number of hours in the day—that is, whose occupation keeps them in close offices and places of business during the day, but who sleep in the suburbs in purer atmospheric conditions; and those who pass the whole of their lives in bad contaminated air without the advantage of a few hours' respite out of the twenty-four. It is with the latter class my observations deal.

The second chief factor of deterioration—viz., *bad habits of life*—tells a sad story on the physical power of the town dweller; probably through ignorance, but certainly indiffer-

[1] Abstract of a paper read at the British Association Meeting, Bath.

ence to the ordinary precepts of health is the rule of life. It is no doubt a fact that intemperance largely exists amongst this class, and the incidence of debauch upon them is heavier than upon those who live under more favourable conditions. Then the various forms of impurity smite with devitalising severity the offspring to the third and fourth generations. Moreover, the general tendency of their ailments is of the asthenic type. When we add to these conditions of human existence the influence of imperfect feeding and malnutrition, we get the state of physical degeneracy largely increased and emphasised. In the paper alluded to great stress was laid upon the diet of the town dweller, as compared with that of the countryman, as tending to degeneracy and impaired health. The digestive capability of the former is of a lower standard, and less capable of dealing with the ordinary articles of diet than the latter. Consequently, they live on such food as they can digest without suffering—bread, fish, and meat; above all, the last. The sapid, tasty flesh of animals, which sits lightly upon the stomach, gives an acceptable feeling of satiety, so pleasant to experience. Such selection is natural and intelligible, but it is fraught with danger. I quote from the paper: "The chief diet selected by the town dweller begets a condition known to doctors as the uric acid diathesis, with its many morbid consequences. Pulmonary phthisis and Bright's disease seem Dame Nature's means of weeding out degenerating town dwellers." Such are some of the medical aspects of the case. But it must not be lost sight of that there is a large class who are not able to procure much nourishing food of any kind, but, on the contrary, are forced by poverty to be content with less sustaining dietary, and they adopt another kind of food, not less injurious, but in another way—a diet mainly consisting of bread, tea, and such-like aliments. The time-honoured fashion so prevalent amongst well-to-do people, of five o'clock tea, may be attended with many advantages socially, but woe to those who take tea four or five times a day, and rely upon it alimentarily.

But it is not the male sex alone we have to consider. The factors I have briefly enumerated tell a terrible story on the lives of mothers of this part of future England, and their offspring pay the penalty nature imposes upon those who fail to fulfil her laws. Their children evidence constitutional disabilities of frame, which is badly and slowly developed, while their mental precocity shows itself in a peculiar adroitness in all the arts of cunning acquisitiveness. It is supposed by some that the effects of mental activity thus early developed interferes with the development of the physique. No doubt the scanty necessaries of life induce a standard of craftiness and cunning which passes muster for intellect at an age which would imply precociousness and superiority, while the country child remains in its first simplicity.

But to the important question, "Is the town dweller degenerating in stature, or is he not?" there is yet no satisfactory answer supplied. It has been said that such a thing as a pure cockney of the fourth generation is a rarity, and so it may be said of all other large towns. The immigration of country folk of both sexes into our large towns is a well-known fact, and it is impossible to trace how far marriage supplies an admixture of new blood into the worn-out stock, and thus renovates it and becomes an antidote to decay. Taking the best evidence we possess, we can only approximately arrive at a solution of the problem. I have said that the degeneracy probably is more found in the loss of enduring tone and physical vigour than in inch measurement. The constant and ever-recurring immigration of the strong and robust countryman into the cities constitutes a steady counterpoise to the downward tendency, and the balance is fairly well sustained. Hence the difficulty of solving the problem. Seven years ago, at the request of the Anthropometric Society, I obtained the measurement of 300 men of various nationalities, some born in towns, some in the country, of various occupations, of different complexions and temperaments, and of various habits. I failed to discover any satisfactory evidence to lead to the conclusion that in actual inch measurement the town-bred man was appreciably inferior to the country-bred man. But, so far as my observation enabled me to judge, the countryman came out incontestably superior in tone of muscular activity. These figures are recorded in the Anthropometric Society's Transactions. Standing alone, they are of no value; they prove nothing, because I had no evidence at what age town dwelling ceased. It is in the mass of statistics we can find proof. Mr. Francis Galton, to whom science is so much indebted, has recently recorded some measurements made by himself in his laboratory at South Kensington on men during the Health Exhibition, and has made a comparison with those of Cambridge University men. Mr. Galton's inquiry extended to as many as 9000 persons. The relation of the two points to a considerable advantage of the Cambridge men:—

	Height.	Weight.	Breathing.	Pull.	Squeeze.
Cambridge....	68·9 in.	153·6 lb.	254	83	87·5
Kensington ..	67.9 in.	143·0 lb.	219	74	85·0

These figures appear to substantiate the statistics of the Anthropometric Society: that the average well-to-do man has a higher general physical condition than the average of a lower grade of society; a similar, though not so well-defined, brain-development exists. These measurements, so far as proof of stature is concerned, must be accepted with some degree of reservation. Presuming that the Cambridge students were drafted from the upper stratum of society, and from the country mainly, there is no evidence that the other class were all from towns.

The tables of the Anthropometric Society, as issued by Mr. Roberts and published in the York Meeting Transactions, state that the result of a comparison as to the average height and weight of the several classes of the population distinguished as (1) the professional classes, including town and country; (2) the commercial classes in towns; (3) the labouring classes in the country; and (4) the artisans in towns. The relative position of the four classes stands in the order stated, Classes 1 and 2 being taller and Classes 3 and 4 slightly shorter than the general population. This relation is maintained throughout, and the tables afford material for study as to the comparative effects of occupation and town and country life on growth. Another table (No. 6) relates to weight. Here, again, the relative position of the four classes stands in nearly the same order, Class 1 being heavier, and Class 4 (i.e., artisans in towns) lighter than the general population; but Class 3 (country labourers) very nearly coincides with the general average, and is, in general, superior in weight to Class 2 (commercial classes in towns). In other words, the occupation of the country labourer places him in weight over the town tradesman, though the latter has the advantage in height.

As regards the physical improvement or degeneracy of the population, the report of the Anthropometric Committee at the Southport meeting says: "Few statistics are in existence which help to throw light on this subject. It is generally believed that the population in the manufacturing towns of the north of England is rapidly degenerating, but a comparision of the measurements of stature and weight given in the Report of the Factory Commission, and the Report to the Local Government Board of the employment of children and young persons in factories, 1873, shows that this is not the case."

What we want is more extensive inquiries as to measurements of persons who have lived in large towns for two or three generations, and compare them with those who have lived in the surrounding country for some generations without admixture. Such an inquiry is surrounded by difficulties, but it alone would be conclusive. My contention is that it is in the loss of physique, of muscular tonicity, vital capacity, and vital force that the degeneracy is to be found. Let the town dweller of the same height and weight go to the Grasmere sports or the Braemar gathering and try conclusions in wrestling or games of prowess and endurance with the hillside man, and the issue will not long hang in doubt; the town man has no "staying power," no "muscular contractile power," and he soon comes to grief. Probably no arrest in the downward tendency of constitutional power can take place until there is some amelioration in the conditions of life to which town dwellers are subjected. Development and integrity of cell structure and the processes of vital organisation are next to impossible under such circumstances of life to which they are exposed. This question is a broad one, and involves many ramifications. If all the circumstances connected with the so-called "sweating system" brought out by THE LANCET Commission can be substantiated as facts, a terribly hideous and degrading state of things exists among those unfortunate creatures compelled by the irony of fate to dwell and work in the slums of our great towns. Their life is little removed from the process of wallowing in dirt, and abiding in squalor and poverty of the most appalling description. They are surrounded by every circumstance of human existence calculated to debase the mind and destroy the body. Is it

possible to conceive any state of life more conducive to loss of health and dwarfing of physical development? These poor creatures appear to have no qualifying or redeeming feature in their every-day routine of life. Breathing in their insanitary homes the wreaking fumes of unhealthy surroundings, an atmosphere vitiated to the last degree of respiratory fitness, to which is added unwholesome food and consequent faulty assimilation, the aggregation must inevitably result in depraved constitutional integrity. Nor is there the faintest silver lining to this dark social cloud. These people have not the relieving benefit of sleeping in pure air after a day of hard work of twelve or fourteen hours' duration in the disease-laden atmosphere of insanitary workshops, but are subjected by day and by night to conditions as far removed from the sources of health as the poles are asunder. Their daily occupations and mode of life in the workshop are bad, and their homes also are bad. It is to be hoped the utter desolation of their lives thus brought to light by THE LANCET will stir up the public mind to such a degree as to insist upon an immediate amelioration of their unhappy condition, and that both homes and workshops will be made more fit for human existence than exists at present. A grave responsibility rests upon the Government of this country in both these respects, and imperial legislation must no longer be delayed to render it impossible for local sanitary authorities to neglect a duty so manifestly necessary to put an end to this pernicious system, which is sapping the life blood and destroying the vital powers of so many town dwellers. The gratitude of every thinking man is due to THE LANCET for exposing the destructive agencies at work amongst the toiling classes, who are incapable themselves of doing anything to lessen the disabilities of life.

It may pertinently be asked, What is the remedy to hinder further degradation of racial power, and rescue the town dwellers from the agencies so powerfully operating upon their physical competency? I fully recognise the cogency of such a question, but I must at once admit my inability to suggest a satisfactory answer. It may to some extent be found in adopting legislative measures. No doubt sanitary reform is doing an excellent work. Insanitary surroundings, overcrowding, uncleanliness, impurity, and intemperance must all be done away with or lessened. Educate the children in the pure air of the country, make the parents aware of the great constitutional value of sobriety and morality, give them all pure air and plenty of it, and away fly the pale faces, cachexia, lowered vitality, stunted development, muscular attenuation, and the imperfect elimination of functional products.

I observe the Anthropometric Committee has instituted an inquiry as to the influence of occupation on the physical development and conformation of the body, and Manchester has been selected as the best place to carry out the research, chiefly because its racial elements are pretty uniform, and it possesses a great diversity of industries. Such an inquiry will necessarily embrace a variety of facts as to health, fitness of occupation, relative injury sustained as to arrest of physical development and other constitutional characteristics of town dwellers. If well organised and well carried out, such an inquiry will define and determine many points hitherto shrouded in obscurity, and it is obvious that an extensive investigation of this kind will lead to satisfactory results. The purely physical side of human nature demands our attention. The instinctive rush of the poorer people into the towns in quest of means to live has greatly helped to complicate the problem of relief. Hardships of various kinds tend to accentuate their wretchedness, and they seek solace too often in the unhealthy pursuit of unrighteous habits. The problem of physical degeneracy has to be reckoned with if the English race in our large towns is to retain a fair standard of physical integrity.

Southport.

ON SUTURE OF THE URETHRA IN CASES OF PERINEAL SECTION.

BY A. MARMADUKE SHEILD, M.B.CANTAB., F.R.C.S.,
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I VENTURE to call the attention of surgeons who may perform the operation of external urethrotomy to the practice of uniting the urethral wound by means of catgut sutures. In cases of perineal section as commonly practised, no attempt at closing the perineal or urethral incision is made. An indolent, deep, and suppurating wound results. At the bottom of this the introduced catheter is exposed, often for several weeks. Healing is protracted and unsound. It may truly be said that by the aid of the fine catheters and bougies of the present day "impassable" strictures should hardly be found in the practice of a skilled surgeon. During the past two years I have met with three cases of stricture which resisted the passage of instruments, though of varied size and form, and used with all observation of patience, gentleness, and perseverance. In these patients, men of over forty years of age, who had long suffered from stricture, the common conditions of perineal fibroid induration and great sensibility of the parts were observed. One of them had suffered for three months from sinus in the perineum. The operation was in all cases conducted after the fashion so well described and practised by Mr. Wheelhouse, the urethra being opened in front of the stricture. In the performance of urethral suture the following points were observed:—
1. The coverings of the urethra were divided by an incision of limited length, and the urethra was clearly defined and felt with the staff pressed against the face of the stricture.
2. The urethra was opened with a fine and very sharp knife, which did not push the fibrous tissue in front of it.
3. The stricture having been passed, incised, and a large gum instrument passed into the bladder, a series of catgut sutures were introduced through the margins of the cut urethra by means of a curved needle. They were placed close together, and, when tied, the catheter was quite concealed. The wound was now dusted with iodoform and the soft parts covering the urethra were united. This was effected by fine wire sutures deeply introduced. About one-third of the length of the incision was left open posteriorly to ensure drainage, and great care was taken that no pouch or pocket could be left in which discharge could accumulate.

The after-treatment to be carried out may be briefly indicated. The perineal wound must be kept clean, and supported with a pad of iodoform wool. The catheter should be retained *in situ* for a week, and the bladder washed out daily with warm boracic fluid. The silver sutures can be retained for fourteen days; they cause little irritation. The catheter should be worn for about a month, and frequently passed afterwards. In the three cases alluded to, union was speedy and complete. In only one of them did any urine leak through the wound. Twelve and eighteen months have elapsed in two of the cases since the performance of the operation, and the patients are able to micturate and pass large instruments with ease and comfort. I would venture to insist upon the importance of making the incisions with a very fine and sharp knife, and of checking all bleeding by sponge pressure, and clearly defining the urethra in a good light before opening it. I have been unable to discover any published account of urethral or perineal suture in the works or writings of English surgeons.

I am quite aware that the experience of these three cases is insufficient to establish the value of this proceeding. But I think I am justified in calling the attention of surgeons to it, and trust that it may receive a trial in appropriate cases. Strictures which call for external division are comparatively rare. It is only by combined experience that the value of any operative modification can be determined.

Stratford-place, W.

ON VENTRAL FIXATION OF THE UTERUS FOR INTRACTABLE PROLAPSE.

BY JOHN PHILLIPS, B.A., M.B. CANTAB., M.R.C.P.,
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THE disease of which I propose to treat here is only too familiar to every practitioner, and its resistance to all varieties of treatment is equally well known. I wish to bring into more prominent notice an operation for its relief, which has been performed in Germany during the past two years more than once, and also in America, but of which, so far as I know, there is no published record in this country. Hitherto nearly all attempts to alleviate this most distressing condition have been directed towards the vagina by the performance of such operations as perineorrhaphy and elytrorrhaphy, the hope being that by constriction or complete closure of this passage the enlarged uterus might be kept in position. The futility of these

procedures is, I think, universally admitted; and when the Alexander-Adams operation was introduced, it was believed that at last a method had been conceived which, from its simplicity of technique and mathematical rectitude, would overcome this *bête noire* of gynæcology. Sufficient evidence has not been adduced at present for or against its value in this condition, and the case I propose to relate shows that at least in some instances the operation would be impossible, and probably in others quite futile as a remedy.

By ventral fixation of the uterus is meant the performance of abdominal section and the fixation of the uterus, either by sutures through its substance or through its appendages, to the anterior abdominal wall. Evidently this may be done in many ways: 1. By removal of the uterus and bringing the stump into the abdominal wound (hysterectomy). 2. Removal of both ovaries and appendages, and suturing one or both stumps into the abdominal wound. 3. Suturing the round ligaments as they pass obliquely from the uterus, and bringing the stitches out external to the median incision. 4. Passing stitches through the muscular tissue of the fundus (true hysterorrhaphy). 5. Removal of the appendages on one side only, and suturing the stump, not into the wound, but external to it, by making the stitches pierce the abdominal wall; adhesion between the stump and parietal peritoneum being the object to be attained. I shall criticise these various methods later on in the paper.

Case.—On March 12th, 1886, I was asked to see, in consultation with Mr. Reginald Clarke, a patient aged forty years, a nullipara, who had been married nineteen years. I found complete procidentia present, rectocele and cystocele. The mass protruded six inches and a half from the ostium vaginæ, while the surface was extensively and deeply ulcerated, bleeding freely on manipulation, and was very tender. Her general condition was unfavourable. The skin was harsh and dry. Urine scanty; sp. gr. 1008; non-albuminous. The catamenia were irregular as regards time, and always scanty, the discharge lasting thirty-six hours, and being of light colour. There has never been any dysmenorrhœa. Palliative treatment had been tried for several months, in the shape of rest, tampons, and all varieties of pessaries. The tumour was easily reducible. The ulcerated surfaces were freely cauterised, and at the end of a month I was enabled to introduce a Cutter's pessary. This produced the desired effect for six weeks, when the patient's condition became as bad as formerly. After further rest and expectant treatment, without any beneficial result, I determined to try operative interference. On March 1st, 1887, I performed a modification of Braun's operation—namely, excision of an elliptical piece of mucous membrane from the front and back of the procident tumour. After bringing the edges together and reducing the curtailed mass, the best result was obtained, as the parts healed by primary union. A month later I operated upon the stretched perineum, baring the surface high up on the posterior wall and well forward on either labium majus. Good union resulted, and the vagina was now so contracted as barely to admit the examining finger. In six weeks' time the cervix was quite healthy, and the length of the uterine cavity two inches and a half. A ring pessary was inserted, and she remained quite comfortable until November, when, from straining at stool, she thinks, acute prolapse took place, and reduction could not be effected without anæsthesia. From this time the old condition of things recurred, the prolapse becoming as bad as ever and her suffering very great. To add to her troubles, copious and repeated hæmorrhages took place, which reduced her to such an extent that she spent more than six weeks in bed before complete hæmostasis could be obtained. On resuming the upright posture the hæmorrhage began again, and, as her mental condition was causing some apprehension, it was deemed advisable to resort to some more radical treatment. I negatived the Alexander-Adams operation because the patient was very stout, and, after trying the operation on the dead subject, I failed in two instances out of six attempts to find the ligaments; in addition, the prospect of permanent relief afforded by this mode of procedure did not seem good enough. On March 7th, 1888, after the usual preparatory treatment, I opened the abdomen by an incision of two inches and a half, intending to suture the round ligaments to the anterior abdominal wall. The uterus was forcibly pushed up into a position of extreme anteversion by an assistant per vaginam. Several coils of small intestine were found in front of the fundus (a similar condition is reported by Sänger). Owing to the thickness of the abdominal walls it was difficult to get the uterus well into view; it was then found that the round ligaments were almost entirely atrophied, and that any attempt to utilise them as a means of suturing the uterus would be followed by failure. On examining the ovaries, I found the left quite healthy, but the right composed of several cysts, the mass being of the size of a Tangerine orange. This I regarded as fortunate. I removed the ovary and tube, leaving a thick pedicle, and then, by means of two silkworm threads, sutured the stump to the anterior wall, being careful to pass them on the inner side of the epigastric artery. I closed the incision, and then drew the two stump ligatures tight, passing them over a piece of solid indiarubber cord, and fastening them by means of split shot and coils. The patient was kept on an inclined bed, the foot being six inches higher than the head, and the vagina plugged with cotton-wool pledgets, thus preserving the position of anteversion. The progress of the case was sufficiently simple. I drew the ligatures out on the twelfth day, and had the satisfaction of feeling the uterus slightly but firmly fixed, the fundus rotated towards the right and anteverted. No descent of the organ followed straining. I put in a ring pessary and allowed her to walk. Since that time she has been quite well, and a few days ago I examined her and found the condition of things unaltered. She suffers no pain, and has had no dysuria or hæmorrhage; she is, moreover, able to walk four miles a day without fatigue. Menstruation has been in abeyance since the operation.

Remarks.—(*a*) As to choice of operation. On referring to the five methods enumerated above, the first (hysterectomy) was quite unjustifiable, the patient being in the prime of life, and, although nulliparous, there was the possibility of maternity to be borne in mind. Moreover, the disease was not sufficiently serious to allow me to entertain the idea of such an operation for a moment. Neither could I bring myself to remove the healthy ovary, as it would have done away with all chance of child-bearing. The third was impossible for the reason already given above, and I am not aware that this clinical fact has been noted—viz., the concurrence of prolapse and atrophy of the round ligaments; was it cause and effect or merely a coincidence in this case? Hysterorrhaphy is said to be attended by some danger, but whether real or not I am unable to state. Howard Kelly certainly deprecates the proceeding, although Tait and others appear to have performed it with impunity. By a process of exclusion, then, I have shown my reasons for choosing the method I did, and so far the result has justified the means. Should pregnancy follow, the behaviour of the adherent stump under the new condition will be watched with much interest. (*b*) Technique of the operation. There appear to be no more dangers than ordinarily occur in abdominal sections. The uterus must be well pushed up and anteverted by an assistant per vaginam, and the intestines kept out of the way by another. The points for passage of the transfixing sutures must be placed about an inch outside the central incision and nearer the pubes than the umbilicus; the epigastric artery must be made out before the suture is passed.

The after-treatment of these cases is most important. The inclined bed should be always used, and a pessary inserted before the patient is allowed to get up, as the newly formed adhesion is sure otherwise to stretch and the prolapse recur. Suturing without removal of the ovaries is the most justifiable of all these operations, and more than one case of success is on record; it was only, in my case, because of the ovarian disease that I was enabled to make use of the stump as already described. Olshausen's case was much like mine as regards the antecedent history. He had tried everything fruitlessly, and then he stitched the base of the broad ligaments and the round ligaments to the anterior wall; the operation, however, failed. He is very decided in his opinion as to the limitation of this method. He thinks that only in very isolated and otherwise hopeless cases (*trostlos*) of adherent retroflexio and prolapsus uteri should the operation be performed. With this opinion I think all who look upon the matter from an unbiased point of view will cordially agree.

The bibliography relating to this subject is of recent date and very scanty; I have, however, appended those of value:—1. Olshausen: "Ueber ventrale Operation bei prolapsus und retroversio Uteri" (*Centralbl. für Gynäk.*, 1886, Bd. x., s. 698). 2. Sänger: "Ueber operative Behandlung

der retroversio-flexio Uteri, &c." (*Centralbl. für Gynäk.*, 1888, Bd. xii., s. 17, 34, and 102, with figures; and 1885, Bd. ix., s. 664). 3. Howard Kelly: "Hysterorrhaphy," with figures (*Amer. Journ. Obstet.*, 1887, vol. xx., p. 33). 4. Klotz: *Centralbl. für Gynäk.*, 1888, Bd. xii., s. 11, 69. 5. Leopold: "Ueber die Annähung der retroflektiren Gebärmutter an der vorderen Bauchwand" (*Centralbl. für Gynäk.*, 1888, Bd. xii., s. 161).

A CASE OF

ACUTE DELIRIOUS MANIA COMPLICATED WITH STRANGULATED HERNIA AND WITH ABNORMAL TEMPERATURES.

BY FREDERICK BRYAN, M.B.,
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G. L——, aged sixty-five, labourer, was admitted to Colney Hatch Asylum on Nov. 10th, 1887, when the following notes were made. The patient is a tall, well-developed man, somewhat feeble and shaky, but able to stand. Heart and lungs healthy. He has very rigid and tortuous arteries. He has a right inguinal hernia, which is somewhat hard. There is no impulse on coughing. Owing to his mental state, no history of any kind can be obtained from him. Mentally, he is in a state of acute delirious mania. He is incoherent, and shouts out loudly; he pays no attention to questions whatever. Tongue clean. Pulse full and strong. Pupils equal, and react normally. Knee reflexes are normal and equal. He was sent to bed.

Nov. 11th.—Reported very restless and noisy during the night. Has been wet, but had no action of the bowels. An attempt to reduce the hernia failed. Evening temperature 97°. Ordered twenty grains of chloral hydrate.

12th.—This morning at 11 o'clock, fifty-seven hours after admission, after some slight hiccoughing, he vomited once; the vomit was distinctly fæcal. Pulse good; tongue clean. One hour afterwards he underwent the usual operation for strangulated hernia, the taxis having failed. No difficulty was experienced during the operation. The sac was not opened. Immediately on his return to bed, he passed a very copious loose motion. A morphia suppository (one-third of a grain) was administered. Evening temperature 99°.

13th.—Morning temperature 99°; evening 100°. Very restless and maniacal during the night. He had removed part of the dressings. Wound dressed. Pulse good. Tongue clean. Has had some milk and beef-tea.

14th.—Still very maniacal and restless. Wet and dirty during the night. Some urine was caught and examined: sp. gr. 1025; acid; no albumen; high-coloured. Evening temperature 99°. Ordered twenty grains of chloral hydrate.

15th.—Temperature normal to-day. Wound dressed. Owing to his restlessness the stitches had given way, and the edges were brought together with strapping. It looks healthy.

16th.—Wet and dirty during the night. Wound dressed; healing from the bottom. Takes his food well. Very restless and maniacal. Is tied in bed. Temperature normal. (No further interest was attached to his hernia; it gave rise to no adverse symptoms, and was practically well at the date of his death.)

17th.—There is no change in his maniacal symptoms. There is little loss of strength. He takes his food well, but it is noticed that there is a little difficulty in swallowing. From to-day his temperature runs rather a remarkable course, as seen by the following table:—

	A.M.	P.M.
Nov. 17th	—	97·6°
,, 18th	96·0°	97·0°
,, 19th	97·0°	97·1°
,, 20th	97·0°	96·1°
,, 21st	95·6°	97·3°
,, 22nd	98·0°	98·2°

On the morning of the 23rd he was reported to have been seized with a fit of trembling, and apparently to have lost power in his left leg. One hour later, when examined, he had distinct loss of expression on the right side of his face. There was then no other paralysis. His pupils were equal and reacted to light. His knee reflexes were exaggerated, and the stimulus used to demonstrate this produced spasm in the thigh muscles. Well-marked ankle clonus. There was some hyperæsthesia in both legs below the knee. The difficulty in swallowing had increased. Temperature: morning, 102°; evening, 98·2°. The subsequent temperatures were as follows:—

	A.M.	P.M.
Nov. 24th	100·2°	100·6°
,, 25th	102·0°	101·6°
,, 26th	101·0°	101·6°
,, 27th	101·0°	101·4°
,, 28th	101·7°	102·0°
,, 29th	101·6°	106·0° at 7 P.M.

After this his temperature was taken every quarter of an hour. It rose gradually from 106° to its maximum of 108°, when death ensued. Half an hour after death the temperature was 104°, and then slowly fell. During the last twelve hours the patient had been in a state of stupor. His pulse was full and strong. He breathed rather laboriously. His eyes were closed, but when opened the conjunctivæ were sensitive to touch, and the pupils reacted to light.

Shortly before his death some friends visited him and gave the following history. From boyhood the patient was noticed to have been somewhat stupid and eccentric, but he had always been well employed. At times he had drunk hard. About five months ago they had noticed him become very strange, and he did odd things and was restless. Particularly they noticed that he became wet and dirty. A month before admission he was suddenly dismissed from his situation, and after a short period of depression became maniacal and was removed to the parish infirmary. As far as his friends knew, there was no family history of insanity.

Necropsy.—In the right inguinal region there was a superficial granulating wound, the remains of the wound made in relieving his strangulated hernia. There was no other sign of external injury or disease. Lungs hypostatically congested, otherwise normal. Heart somewhat enlarged, dne to some general dilatation; valves healthy; aorta very atheromatous. Abdominal organs healthy. There was no sign of peritonitis. Although carefully looked for, the seat of the strangulation of the gut could not be found. On examination of the head the calvaria was found to be normal; the dura mater was also normal. On removal of the brain a small quantity of fluid escaped. The arteries at the base of the brain were rigid and atheromatous. The pia mater at the base of the brain was little changed. That on its upper surface was gelatinous in appearance and much thickened. There were no adhesions between it and the cortex, but it peeled off as if gummed to the cortex. It was removed nearly as a whole, and when held up to the light was opaque and crowded with large vessels. The gelatinous appearance of the pia mater was apparently partly caused by the presence of serous fluid in its meshes. It was tough, and its thickness many times that of normal. The cortex was somewhat greasy to the finger. No other sign of disease was discovered in the brain. The ventricles were of normal capacity, and contained no fluid. There was no sign of any hæmorrhages or softening. The cord was removed and examined. Its membranes were healthy, and there was no sign of disease to the naked eye on section.

Remarks.—Surgically, this case is interesting from the scarcity of symptoms pointing to strangulation. Although it appeared that there was no impulse in the hernia on coughing, still this was somewhat uncertain owing to the difficulty of making the patient cough well. Practically, the only symptom was the vomiting; and this occurred only once, and was fæcal, fifty-six hours after admission. This abeyance of symptoms is met with in lunacy practice, often to a very great degree; and the writer knows of at least one other case in which there were no symptoms produced by a strangulated hernia. Medically, the case was looked upon as an acute attack, superimposed upon a chronic disease of the membranes of the brain. In nearly all cases of acute delirious mania a sudden shock is the assigned cause; in this case the patient's sudden dismissal from his situation appears to have been the exciting cause of his acute delirium. The abnormal temperature was very interesting. Abnormally high temperatures, and, (?) less frequently, abnormally low temperatures, are fairly common in the insane, but as far as I know the combination is unusual. Whilst watching the progress of this case it

occurred to me that it would be very instructive to endeavour to explain the possible cause of the abnormal temperature. The usual explanation of elevation of temperature is, to put it shortly, increased tissue metabolism, and the cause of low temperature exactly the reverse. In this case, however, it appears to me that this explanation does not hold good, as the condition of the patient—viz., that of exaggerated restlessness and delirium—was the same during the period of low as during the period of high temperature, at any rate as far as the elevation to 104°. The possible explanation appeared to be that the so-called "heat-regulating" centre in the cortex had been directly interfered with by the disease of its membranes, and this case seems at least to suggest some corroboration of the presence of this cortical centre. That the thickened, gelatinous membranes must have affected the functions of the subjacent cortex cannot, I think, be doubted; and the fact of the facial paralysis and the evanescent limb paralysis—a common feature in general paralysis of the insane, in which the naked-eye appearances of the membranes are exactly as in this case—I think corroborates this.

For permission to publish this case I am indebted to Dr. Seward, medical superintendent of the male department.

Colney Hatch.

PERFORATION DURING ENTERIC FEVER; RELAPSE; RECOVERY.

BY RICHARD LAKE, L.R.C.P. LOND., &c.

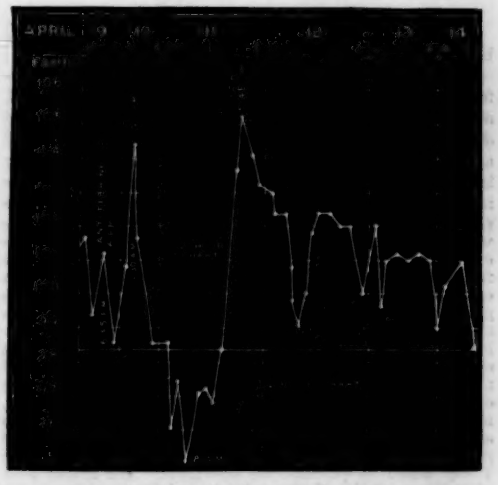
ON March 28th last I was called in to see a young lady, aged nineteen, suffering from sickness and diarrhœa. She gave the following account of herself. Twenty-five days previously she was seized with vomiting and diarrhœa during the night; the latter continued until four days before the above date, when she complained of more malaise than hitherto, and was given a saline purge. All her previous troubles now became exaggerated, and troublesome vomiting set in.

On examination her abdomen was slightly distended and tumid. Pain was present in the right iliac fossa, also gurgling. No spots were found. The vomit was clear and of a bright-green colour. The stools were of a yellow pea-soupy consistence, with some floating flakes of mucus; fifteen stools during the last twenty-four hours. Temperature 103°; pulse 100. Tongue red in centre; edges covered with a thick white fur; dry, but not cracked.

March 29th.—Bowels acted thirteen times during the day. Less vomiting. Liver dulness increased, with marked tenderness over the whole organ. Ice given to suck.

30th.—No vomiting until 5 P.M. One-third of a grain of morphia was given thrice in six hours to check the diarrhœa.

The temperature from the 28th for five days fluctuated between 103° and 101° F., being only slightly influenced by antifebrin. The symptoms scarcely varied at all, excepting that the diarrhœa was checked by the three doses of morphia. During the next five days defervescence took place, the morning fall approaching or reaching normal, and the evening rise only once reaching 101°. During the four following days the chart was about this level, the temperature rising once to 102·5°; this was due to constipation, as the temperature fell immediately the bowels acted. (See chart.) On the night of April 9th pain was complained of in the abdomen, but was not severe, and was treated as colic by hot fomentations. As the pain continued and became more severe, the temperature rising, the patient at the same time getting an anxious expression, the abdomen was subjected to another examination, with the result of the discovery of a tender spot midway between the eighth right costal cartilage and the umbilicus. The hot fomentations were reapplied and nourishment given, chiefly brandy and raw beef juice. At mid-day on the 10th, the fall of temperature was so sudden, and symptoms of collapse so rapidly followed, the face becoming blanched, the tongue dry, and the pulse frequent and small, that perforation of the intestine was diagnosed, which belief was strengthened by the persistence of tenderness in the right hypochondrium, together with some ill-defined dulness there, with sharp shooting pain in the abdomen. Hot bottles were used to pack the patient in, and the following measures taken to endeavour to prolong life. The patient was kept in the dorsal decubitus, with flexed legs and thighs, together with the application of hot fomentations to the abdomen. Of this period a chart is given, continued until all signs of inflammatory action had ceased—i.e., on April 14th. An ounce of brandy, with an ounce of raw beef juice, were given in the form of an enema every hour; also five minims of tincture of opium every hour by the mouth for the time the patient remained awake, and then every two hours until the 12th; subsequently every four hours until the 14th, when it was discontinued entirely, and food again administered by the mouth. With regard to the general and local symptoms after the morning of the 11th, green vomiting was again present, but was checked by sucking ice. The dulness in the right hypochondrium extended until it occupied an area of about four inches in diameter, forming a fairly well-defined



tumour, very painful on palpation; this began to contract on the 14th, was almost imperceptible on the 28th, and was entirely absent by the 10th of May. The pain was at all times the same, sharp and lancinating, and often accompanied by vomiting. The bowels were only moved by glycerine enemata, and there was much chalky matter in the motions. The breath was exceedingly offensive, and had a strong fæcal odour. From the 14th to the 18th the temperature remained subnormal, with evening rises above the normal. On the latter day a relapse commenced, the temperature reaching 102·6° on the evening of the 22nd, falling to the normal by the 27th. There was one rise on the 26th up to 104·2°, with vomiting; this was explained by the bowels not having acted, as on the 7th. The patient has lately returned to Scotland, and is quite well to all appearances.

Remarks.—Any doubt remaining as to this case being enteric fever is removed by the following facts. 1. The patient contracted the illness in a district where enteric was prevalent. 2. The main and house drains were very defective, the former blocked, as I learn from the medical officer of health for the town. 3. Several other pupils from the same house had the disease; the date of invasion being in all cases the same, and three deaths occurring, one of those first mentioned being under my care suffering from enteric. 4. Nurse Scarman, to whose skilful care the successful issue of the case was largely due, contracted enteric, and was treated at the Victoria Nursing Home, from which institution she came. The chief interest of the case lies in the period expressed on the chart—i. e., from April 9th to the 14th. It is obvious that some severe lesion had occurred on the evening of the 9th, as is shown by the sudden collapse and rapid rise of temperature which followed. Dr. Donald Hood has recorded several cases of venous thrombosis in the course of enteric fever, which have suggested perforation by their course and symptoms; but though collapse may be present in these cases, neither is the fall so low as 95°, nor is the rise afterwards so high. It is known that perforation may occur in a portion of the intestine bound down by

lymph, the result of a localised peritonitis from the spread of inflammatory action from the ulcerated Peyer's patch, thus localising the mischief; and these are apparently the changes which took place here.

Barnes.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF DEFICIENT ŒSOPHAGUS.

By CHARLES STEELE, M.D., F.R.C.S.

THE following case appears to me to be of interest from both a surgical and an anatomical point of view.

I was lately asked to see in consultation an infant twenty-four hours old, who, shortly after being given nourishment, a little of which was taken readily, became very livid, had difficulty in breathing, and then returned the food and appeared no worse. The gentleman in attendance wisely introduced a sound, and found that it passed about five inches and encountered an impassable obstruction. He then asked me to see the child, and I repeated the sounding with the same conclusion. We diagnosed that there was either a membrane across the œsophagus, or that it ended in blind terminations; and I advised that through the night enemata of dessertspoonfuls of peptonised milk should be given every two hours, and that by daylight the stomach should be opened and the œsophagus explored; if a membrane could be made out across a continuous canal, that it should be perforated in order to give a hope of life; and that, if we found any distance existed between the extremities, we could do no more; the parents, however, might feel that every possible endeavour had been made to save their child's life. This was agreed upon, and the father willingly acceded. On the following afternoon I was asked to perform the operation. The infant took chloroform well. I opened the abdomen above the umbilicus in the middle line, exposed the stomach, and stitched it at four points to the skin, having some difficulty to keep the liver from protruding. The stomach was then opened, which was perfectly healthy, and of course empty. A bougie was passed down the œsophagus as before, and another upwards from the stomach for a short distance; but they did not approach each other by what we judged to be an inch and a half. I then cut a gum-elastic catheter in half, and passed it from below, introduced up it a long slender steel probe, and pressed it upwards as much as was justifiable, in case the lower part of the tube might be twisted or narrowed, and capable of being rendered pervious. All was of no avail, however; so the stomach wound was closed with sutures, also the abdominal wound, and we felt sure that the œsophagus was deficient for about an inch and a half. The infant slept for some time, and died twenty-four hours afterwards. The next afternoon we made an examination, and found that the œsophagus terminated above and below in blind rounded ends an inch and a half apart, and there was no cord or connexion between the parts. All the wounded portions were quite healthy, and the appearances led to the conclusion that had there been only a membranous occlusion a happy result might well have been hoped for.

SUPPURATING HYDATID CYST OF THE LIVER PERFORATING THE LUNG; RECOVERY.

By FRANCIS W. JOSHUA,
SURGEON TO THE GREAT MALVERN DISPENSARY.

MISS A. S——, aged fifty, of full habit, had in 1886 and 1887 several attacks of congestion of the liver and jaundice, but throughout December of the latter year felt perfectly well. On Jan. 6th, 1888, I was sent for, and found her in bed complaining of pain in the right shoulder and just below the right breast. Her countenance was anxious; temperature 101°; pulse 100; respiration hurried; no jaundice; dorsal decubitus. The liver was two inches below the ribs (the percussion note dull as high as the fifth interspace); its contour was smooth and regular; no fluctuation could be detected. Gall-bladder distended; no tenderness on palpation. Three weeks later the liver was three inches below the ribs, somewhat tender to the touch, and quite firm. The temperature during this period was generally normal during the day, rising to 100° and 101° in the evening. The bowels were constipated, and the evacuations untinged by bile. On Jan. 30th an incessant dry hacking cough set in, lasting ten days, which was relieved occasionally by morphia. The patient was now very ill and weak; there had been no rigors. On Feb. 9th she coughed up a pint and a half of pure pus. The following day a few hydatid cysts of small size appeared in the sputa. She complained of great sense of oppression and severe pain in the upper part of the chest, more especially on the left side. The lung and heart sounds were normal, and the chest was resonant throughout, save in the hepatic area, where there was absolute dulness and considerable bulging of the parietes. During the next few days hydatids in varying number were spat up daily, most of them larger in circumference than a crown piece; their emission was always accompanied by most distressing paroxysms of coughing and extreme dyspnœa. On Feb. 17th the patient was very hoarse. At 1.30 P.M. she took a little solid food. At 2.30 P.M. a sudden rush occurred from the mouth and nares of a thin fluid, hydatids, and blood-stained pus. I saw her a few minutes later, when she was apparently moribund, no pulse at wrists, gasping inspirations (four or five in the minute), extremities cold, face cyanosed, and completely unconscious. Two chamber utensils were shown me nearly full of blood-stained hydatids. I injected thirty minims of ether hypodermically, repeating the injections in a few minutes, with but slight result. Then, on the supposition that hæmorrhage had taken place into the cavity, I injected four grains of ergotine. The pulse returned gradually, but the cheeks and lips remained perfectly blanched. I therefore injected into the rectum an ounce of brandy and half an ounce of turpentine with yelk of egg. Consciousness returned, and she was shortly able to swllow a small quantity of brandy-and-milk. On each succeeding day a few hydatids and some sanious matter were coughed up, until March 2nd, when the cough became more violent, and she expectorated a pint of pus during the day.—On the 7th she was jaundiced, and the temperature rose to 101°. On the 13th bile-stained hydatids were coughed up, and on the 14th a pint and a half of pure bile, which came up in varying quantities for a week, with one interval of two days. Then began an uninterrupted recovery, and on April 3rd she was able to bear removal to another room. At this time the patient was greatly emaciated. The hypodermic punctures had sloughed, and a bulla four inches in diameter over the left tibia left a corresponding ulcer. The liver gradually receded to the lower margin of the ribs.

Remarks.—The exceeding rarity of complete recovery in such cases renders the present one worthy, I think, of record. There was considerable difficulty in arriving at a correct early diagnosis, the (comparatively speaking) apparent smallness of the visceral enlargement, its firm and even outline, and absence of fluctuation leading one rather to the supposition that the case was one of malignant or amyloid disease.

Great Malvern.

ON THE SMOKING OF STRAMONIUM LEAVES, SIMULATING INSANITY.

By M. J. T. J. BLANCARD, SURG. M.A.

ON Aug. 30th, 1887, while on duty with a flying column at Leygi, Upper Burmah, I was called to see a man found unconscious near a well close to the outpost. The man was taken to hospital, and on examination the following symptoms were observed. Insensibility, with complete relaxation of voluntary and involuntary muscles. Pulse small and compressible. Surface of body cold and clammy. Pupils not reacting to light, but fixed in a dilated position. Deglutition normal. Sphincters relaxed; motions and urine passed. Reflexes absent. Breathing at first stertorous, but gradually becoming quicker, with intervals of sighing. When spoken to in a loud voice the man answered with a moan. Eyelids closed—not naturally, but as if done purposely. Head cool.

Liquid food introduced into the mouth was readily swallowed. This state of things was kept up for thirty-six hours, when the patient suddenly started up, and tried to escape. The two orderlies watching over him had to use considerable force in restraining him, the finger of one of them being severely bitten. Forty grains of bromide of potassium were with difficulty given, after which the man became quieter and fell asleep. When he awoke he was quite conscious, and was bewildered to find himself in a strange place. As I had observed a similar case some years ago, I, without preamble, asked him what he had been smoking. Taken aback, he blurted out the whole truth: that about a week ago he had smoked and chewed the leaves of the Datura stramonium, which grew profusely in the neighbourhood; that he had felt very sick; and that afterwards it was all a blank. To fill up the gap in his case, I waited for further information, and was told that the patient had been observed to be somewhat strange in his usual behaviour, laughing and crying without the least cause. He, however, suddenly disappeared, and was not heard of till his discovery as above narrated.

Ramsgate.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. MARY'S HOSPITAL.

ACUTE INTESTINAL OBSTRUCTION; ABDOMINAL SECTION; RECOVERY; REMARKS.[1]

(Under the care of Mr. EDMUND OWEN.)

IN addition to Mr. Owen's remarks, we may refer our readers to the discussion at the Medical Society on Monday last, which excited much interest. For the following report we are indebted to Mr. A. H. Bindloss, B.A.

On the evening of Monday, July 30th, Mr. Owen was called in consultation to the wife of a small shopkeeper, in her fiftieth year, who since the previous morning had been vomiting incessantly. On the evening of Saturday (28th) she had, according to her usual custom, taken some purgative medicine, and early in the morning of the Sunday had been seized with such severe abdominal pains that, on getting out of bed to pass a motion, she had fainted and fallen upon the floor. After this, vomiting set in, and continued throughout the whole of Sunday and Monday. When Mr. Owen saw her (on the Monday night) she was sick every ten minutes, and was complaining of great pain across the umbilical region, but she did not show much sign of collapse. On making a careful examination of the surface of the abdomen, a small irreducible femoral hernia was found upon the left side. It had existed for many years, and on this occasion was so quiet and free from tenderness that it appeared unlikely that it could be the cause of her present distress. It was agreed, however, to cut down upon it there and then, and that, if it were found of no material import, and if the symptoms persisted after the herniotomy, the patient should be sent into St. Mary's Hospital next morning for abdominal section, so serious an operation being quite impracticable in her own house. * * * * The hernia proved to be a mass of omentum, which, being somewhat adherent to the sac, was carefully separated and returned into the peritoneal cavity. Next morning the patient was no better; so Mr. Bligh Wall, under whose care she was, persuaded her to come into the hospital.

On Tuesday (31st), at 2 P.M., she was taken into the theatre, and, after a brief consultation, it was unanimously agreed to open the abdomen. Even at this time she did not show much collapse, but her abdomen was enlarged, tympanitic, and tender, and she was vomiting constantly.

Operation.—A five-inch incision was made in the linea alba, and on opening the peritoneum about half a pint of dark sherry-coloured serum escaped. The small intestine was purple, and on lifting up some greatly distended coils a pale and collapsed piece was discovered, and a firm band of omentum was found compressing, and obliterating the lumen of, the bowel. A few inches distant up the dilated piece of intestine was a ring-like constriction, which had evidently been caused by a previous and long-continued pressure by the same band. There were no signs of recent strangulation at that constriction, however, and the conclusion drawn was that that piece of the bowel had become accustomed to the pressure of the omental band, but that a sudden slipping of the intestine—perhaps the result of the purgation—had brought a fresh piece within its grasp, which had promptly become strangulated. It may not improbably have been this old-standing compression that caused the woman to resort to the weekly purgation. The omental band was about one-eighth of an inch wide, and the piece of bowel across which it lay gave ample evidence of the urgency of the need for its division. The band being torn across by the fingers, the intestine was at once free. The piece of omentum which had been returned from the femoral sac was seen in the left inguinal region, and, as it looked swollen and ragged, it was ligatured and removed. The peritoneal cavity was not washed out; the abdominal wound was closed by silk sutures, which passed deeply through the serous lining and kept the sides of the peritoneal incision in accurate apposition. The dressings consisted of boracic acid powder and pads of wood-wool, under a binder.

After being put back to bed the patient had no more sickness, and on the following day a little milk was allowed with iced water, which she kept down; and on the second day after the operation she took small qantities of peptonised beef and milk. The temperature remained under 100° F. She was passing a good deal of flatus per anum. At the end of a week the bowels were relieved by an enema, and the wound was dressed for the first time. The femoral wound healed by first intention, as did also the abdominal wound, with the exception of the lower end, from which there was a good deal of discharge for some days during the second week. Towards the end of September the woman left the hospital, well, and rapidly regaining her strength.

Remarks by Mr. OWEN.—The coexistence of the irreducible femoral hernia with the internal strangulation is an interesting rather than an important feature of the case. The absence of local tenderness about the hernia could not be taken as evidence that the acute symptoms were not dependent upon it; the only thing to be done was to cut down and explore. Had the patient's surroundings been more favourable, the abdomen would probably have been opened as soon as the hernial wound had been explored. As it was, there was a delay of sixteen hours before the laparotomy could be undertaken. This loss of time was much regretted, but it could not be avoided; on her coming into the hospital the operation was undertaken without a moment's delay. Certainly if it had not been done the woman must have died, for the rigid band was deeply embedded in the dark and swollen bowel, and ulceration must have occurred very shortly. This report affords further evidence of the value of early exploratory incision in the case of acute intestinal obstruction. Clinical experience gives almost daily testimony to the fact that a clean incision into the abdominal cavity is not in itself accompanied with much danger, though, of course, when a prolonged search has to be made behind dilated coils of intestine the out-look becomes more grave. One of the most distressing revelations of the post-mortem room is the demonstration of an acute internal strangulation, which, though suspecting it during life, the surgeon has not the opportunity of relieving; but more poignant still is the regret felt by the surgeon who, obtaining the tardy sanction to explore the abdomen, finds the strangled bowel damaged almost beyond the prospect of recovery.

[1] Abstract of a case read before the Medical Society on Oct. 15th.

GUY'S HOSPITAL.

PROGRESSIVE CARIES OF THE TARSUS.—MULTIPLE EXOSTOSES.

(Under the care of Mr. BRYANT.)

Caries of tarsus (left) and first metatarsal; incision and scraping; spread of disease; Pirogoff's amputation; recovery. (From notes by Mr. Carter and Mr. Perkins.)—E. R——, aged three, was admitted on Dec. 12th, 1887, and discharged cured on April 29th, 1888. The family history

was good. The boy had whooping-cough twelve months previous to admission. At that time he had a fall. He complained of pain in the left foot next day. Three months after the accident a swelling was noticed on the dorsal surface of the left foot, which gradually increased in size, and at the end of the next three months it was as large as an egg. Poultices were used, without any good effect. Iodine was applied, and the swelling got a trifle smaller. The iodine treatment was continued, but the swelling had not decreased in size while under observation.

On admission, there was a swelling on the dorsal surface of the left foot, about the size of a pigeon's egg, situated over the three internal metatarsal and the three cuneiform bones, and reaching from about half an inch in front of the junction of the leg with the dorsum to within half an inch of the toes. The ankle joint was free. There was distinct fluctuation in the swelling. The part was not inflamed. Urine acid; no albumen or sugar.

Dec. 22nd.—Under chloroform an incision one inch long was made over the swelling, which was composed of pulpy granulation tissue; a little carious bone was scooped off the dorsal surface of the first metatarsal bone, close to the apex. Iodoform gauze dressings were put on, and a back splint with foot-piece applied.

31st.—Wound dressed; a good deal of discharge.

Jan. 7th, 1888.—Wound covered with granulations; still a good deal of disharge.

24th.—Wound not healing well; discharge less.

26th.—Under chloroform an incision about an inch long was made over the middle of the fifth metatarsal bone. About half an ounce of dark blood came out. Iodoform gauze dressings were applied, and a back splint with foot-piece again applied. Temperature this morning 100°.

27th.—Foot seems more comfortable. Temperature 98·4°.

31st.—Foot very tender; painful on pressure over the dorsal surface. Not much discharge. Leg is now swung in a cradle.

Feb. 6th.—Wounds have an unhealthy appearance; not much discharge. Foot tender on dorsal surface; not red.

15th.—Foot uniformly enlarged; prominent granulations project from the wound on the outer side of the foot, and the outer half of the dorsal surface looks red. The wound on the inner border is nearly healed.

21st.—Under chloroform the wound over the fifth metatarsal bone was enlarged backwards over the cuboid. Mr. Bryant put his finger in the wound and found the cuboid bone very much diseased, and the cartilage on the anterior facets shed. The greater part of the bone, which was very soft and carious, was scooped out; the cavity was washed out with iodine water, and the wound dressed with iodoform strips. An incision was also made into a small, soft fluctuating swelling on the inner border of the foot, just in front of the prominence of the heel, and about two drachms of pus and a little blood came out. No bone could be felt. Cavity washed out with iodine water; wound dressed with iodoform strips. Back splint with foot-piece applied. The following note was made by Mr. Burghard, surgical registrar: "Only a mere shell of the cuboid was left. The bone removed was soft and spongy in the extreme, and its meshes were filled with fatty granulation tissue. Cartilage was fairly healthy. Os calcis not affected."

27th.—Wound looks much better; very little discharge. Temperature about normal.

March 10th.—Very little discharge; foot very swollen and tender on pressure.

20th.—Under chloroform Pirogoff's amputation was performed. An incision was made from the lower extremity of the external malleolus to that of the internal; from the lower extremity of the internal malleolus an incision was carried across the dorsum of the foot to the lower extremity of the external; the ligaments of the ankle joint were then cut through, and the flap of integument taken off the posterior part of the os calcis; the extremity of the calcis or epiphysis was retained in the flap; the lower extremities of the tibia and fibula were then exposed and cut off with a saw, the vessels were twisted &c., silk sutures inserted, a drainage tube put in on the outer side, and the wound dressed. Ten minims of tincture of opium were administered at 6 P.M.

22nd.—The parts are in good apposition. Union making good progress; drainage tube removed.

26th.—Sutures removed; strapping applied.

April 23rd.—All the parts are completely united. The boy gets up; he can stand on the stump without pain.

29th.—Went out; to come up in a month's time.

Multiple exostoses, one on neck of fibula stretching the external popliteal nerve; removal of growth; recovery. (From notes by Mr. Tressider and Mr. Clowes.)—J. F——, aged twelve, living at Plumstead, was admitted on Dec. 21st, 1887, and was discharged on March 15th, 1888. The family history was good. His present trouble commenced nine months before admission, when he fell and hurt his right knee (outer side). A week afterwards he noticed a hard and painful swelling there, which increased in size, and recently he noticed three smaller swellings in the region of the knee joint. These had been getting larger, and were painful. He could move his knee joint, but it was painful if moved much.

On admission, there was a hard swelling firmly attached to the bone over the outer side of the head of the right fibula; it was about an inch and a quarter in length, and painful on pressure. There was another round immovable swelling just below the inner tuberosity of the right tibia; two others, hard, immovable, and smaller, above the internal condyle of each femur; and one over and in front of the external malleolus on the left side. The following note is by Mr. Burghard: "The tumour over the head of the fibula is the largest, and at first gives quite the sensation of being a much expanded head of the fibula. Closer investigation proves it to have a lowly tuberculated surface, and the finger can be inserted beneath a small prominence on the anterior aspect of the head of the bone. All the other tumours are situated on or near the epiphysial lines. Those on the femur are rather spur-shaped, and project upwards in the direction of the adductor magnus tendon."

30th.—Patient has been kept in bed for the last day or two, the swelling on the outer side of the right leg has got smaller, harder, and less painful.

Jan. 3rd, 1888.—Under chloroform, Mr. Bryant made an incision two inches long over the upper end of the right fibula, the highest point corresponding to the insertion of the biceps. The skin and fascia were divided and the peroneal nerve exposed. This was carefully raised from the tumour, and an incision made down upon the bone. With a chisel and hammer the exostosis was removed in two pieces. A couple of gut sutures were put in, strapping applied, the wound dressed with iodoform gauze, and a long rectangular splint applied to leg and foot. The exostosis was found to consist of cancellous bone covered with cartilage. No bursa was found on its surface. The surface of the tumour exposed displayed a surface covered with several small tubercles, each of which was covered with hyaline cartilage. The tumour consisted of cancellous bone covered with a layer of hyaline cartilage one-eighth of an inch thick.

4th.—Patient sick; complains of pain in the knee; temperature 98°.

5th.—Wound looking well.

15th.—Wound looks well; no pain.

Feb. 5th.—He got up yesterday for the first time since the operation; leg looks well.

12th.—Wound washed with chloride of zinc lotion.

March 7th.—Wound granulating up; almost healed; no discharge.

15th.—Patient went out to-day. The wound seems larger, and there is a little extravasation of blood in a part of it. He does not seem very strong in himself. A good recovery, however, eventually took place.

BOLTON INFIRMARY.

CHRONIC GENERAL ARTERITIS; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. E. C. KINGSFORD.)

ANN M——, aged forty-five, was admitted on Feb. 16th, 1888, suffering from gangrene of the left foot. No history of anything wrong could be obtained anterior to nine weeks before admission, when the patient was said to have suffered from inflammation of the lungs and bronchitis; nor was there any history of syphilis or rheumatism. Four weeks later, on getting up one morning, she found the right foot extremely painful and colourless, and was unable to stand on it; the left foot was soon similarly affected, and in a few days both got well again. Three days before admission the left foot again became very painful, and was discoloured on the outer side. When first seen both feet were cold, and the left, together with the leg and thigh up to the groin, was extremely painful; the fourth and fifth toes and an inch or so of the foot posterior to them, were of a purplish-red

colour. No artery in either foot could be felt, and the pulse was scarcely perceptible at the wrist, and could only just be felt in the temporals. The heart's rate, as counted by sound, was something over 180 per minute, and there was no bruit. No pain existed anywhere except in the left leg and foot. The urine contained urates and a slight amount of albumen, and, on adding a strong solution of ammonia to it, phosphates were thrown down, and the fluid assumed a bright cherry-red colour (euro-erythrin?).

In order to relieve the heart, nitro-glycerine and strophanthus were administered every four hours, and after six doses the pulse was irregular and about 150 per minute. Next day it was reduced to 140 and was less irregular, and easily felt at the wrist, though not countable; and the following day its rate was 106. The foot became more dusky, and the fourth and fifth toes and a patch of skin over the tibia quite black and dry. During the following week the pulse varied from 100 to 120, and was more or less irregular, as, felt at the wrist, its rate did not agree with that of the heart sounds, some of the beats seeming to be dropped. The gangrene in the meantime slowly extended, pain being now confined to the foot, and there was no tactile sensation below the ankle.

Feb. 28th.—There is sudden pain all down the right leg, the patient being greatly frightened. Cough becoming troublesome; wheezy rhonchi heard at upper part of right chest; left upper part dull; vocal and tactile fremitus absent.

March 9th.—Urine contains one-fifth albumen; no reaction with ammonia. Some œdema of right leg; considerable congestion about perineum; diarrhœa and vomiting.

11th.—Complains of "curious numb feelings all over her." Pulse 88, regular.

13th.—Loss of appetite; sleeps very badly; seems very anxious about herself.

14th.—Becoming noisy and extremely irritable; wants very much to be helped to die easily.

15th.—Hands cold; breathing of a gasping character. Pulse very irregular; cannot now be felt even in the femorals. Complains of abdominal pain since she made an attempt to get out of bed early in the morning. She became gradually worse, and died at 4 A.M. on the 16th.

At the necropsy double pleurisy, with effusion, was found. The right lung was in places adherent to the parietes; the left was much compressed, and there was a large infarct in the anterior part of its upper lobe, and another in the lower. The heart weighed 14½ oz., the left ventricle being hypertrophied and the auricle dilated, with an ante-mortem clot filling its appendix. The right ventricle appeared normal, while its auricle was dilated and hypertrophied. The mitral valve was thickened, and the orifice would only admit one finger; the other valves appeared normal. No pericarditis, but a well-marked milk patch. A few atheromatous patches were scattered over the commencement of the aorta, but the arch was free. There was peritonitis, with sanious fluid and recent lymph; a good deal of the latter in Douglas's pouch. The intestines were congested and inflated, and the stomach appeared healthy. The liver weighed 50 oz., and was extremely fatty and fibrous; under its capsule posteriorly was a cavity of about four ounces in capacity, stuffed full of empty, breaking-down hydatid cysts, varying in size from a pin's head to a billiard ball. The spleen was hard, and weighed 9 oz.; and the kidneys were small and pale, one of them containing a large infarct, which was caseating in places. Both the common iliac arteries contained adherent blood clots, that in the right being more organised of the two; the right femoral was much attenuated with thickened walls and small lumen, and the left appeared thicker, but its lumen was only slightly greater than that of the right, and was blocked with an adherent clot. The brachial, radial, and tibial arteries were similarly thickened. Unfortunately the head was not examined.

Remarks by Mr. KINGSFORD.—This case, beyond the fact that it proved a veritable museum of pathology, is of special interest, in that chronic general arteritis is a rare disease, and, according to Wilks and Moxon, generally occurs in young and vigorous persons. These authorities, too, point out its coexistence with fibrous myocarditis in the left ventricle, and in the case before us there was extreme stenosis of the mitral orifice. It is worth noting that this lesion did not produce any murmur, for the heart was auscultated with care daily in order to count the pulse, and no bruit was at any time heard.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Injury to Elbow Joint.—Pulmonary Surgery.—Extensive Ankylosis of the Skeleton, with Diaphragmatic Breathing.—Peculiar Cutaneous Disease.

THE first ordinary meeting of the session of this Society was held on the 12th inst., Dr. W. H. Broadbent, F.R.C.P., President, in the chair.

Mr. T. W. NUNN read a case of Injury to the Elbow Joint involving the ulnar nerve. The patient, aged sixteen, while at school in France, fell in taking a leap, making it probable that the hand first came in contact with the ground. He was first seen two months after the accident, when it appeared that the radius was dislocated forwards. Attempt at reduction under an anæsthetic was unsuccessful, and at that time the arm could not be fully extended, and extension as far as it went was not in the normal line, but in a line bending inwards. The hand was *en griffe*, indicating paralysis of the ulnar nerve, of which some thickening could be felt above the elbow. There was loss of sensation in the little and ring fingers. After an interval of five years from the date of the accident (Nov. 1881), if the arm were kept flexed for any length of time, "pins-and-needles" would be felt in the two ulnar fingers, and on examination the head of the radius could be seen without question to rest on the front of the capitellum of the humerus, proving that dislocation had occurred simultaneously with the other injuries.—Mr. CHRISTOPHER HEATH observed that these cases were not only difficult to diagnose, but difficult to treat, because in young people the accidents were generally complicated, and the epiphysis of the lower end of the humerus snapped off. The proper treatment of doubtful cases was to flex the elbow, and lay the forearm obliquely across the chest so that the hand of the injured side touched the opposite shoulder.—Mr. BRYANT agreed that in doubtful cases, and in those which could not be reduced, the position advocated by Mr. Heath was the best one.—Mr. NUNN said in a recent case he should be inclined, in the case of a young child, to put the arm up perfectly straight, and trust to obtaining movement afterwards.

Dr. PASTEUR read a case of Pulmonary Gangrene treated by incision and drainage. The patient was a delicate-looking boy aged seven. His illness was insidious in the onset, but had developed rapidly. On the morning before admission to the North-Eastern Hospital for Children he coughed up a quantity of bright blood, and his mother noticed that his breath had become very offensive. On admission ten days after the onset, he was febrile, with thickly-coated tongue, quickened breathing, and gangrenous fetor of breath. Over the right upper lobe were impaired resonance, weak tubular breath sounds, and diminished voice conduction. During the next three weeks cavity signs developed at the right apex, and the remainder of the right lung became pneumonic. The temperature ranged between 100° and 103·6°. He spat up daily from two to four ounces of offensive watery fluid, mostly saliva. The boy was subsequently operated on by Mr. Pollard. The cavity was incised at the anterior extremity of the right second space, one inch from the sternum. Large quantities of gangrenous lung and putrid fluid were expelled through the wound. The cavity reached down to the sixth rib. A counter-opening was made in the sixth space, flanged tubes inserted, and a blue wool dressing applied. Next morning the child was much relieved, nearly free from cough, expectorating small quantities of frothy sputum almost free from odour, and practically free from pain, which had hitherto been a most distressing symptom. The cavity was washed out daily one or twice as occasion required. At the end of a week the washings deposited a copious sediment of pus. The improvement, however, was not maintained. The temperature, pulse, and respirations remained high, fetor of breath reappeared on the tenth day, and the patient sank rapidly three days later. A huge cavity occupied the anterior third of the right lung. It was lined for the most part with a thin layer of granulation tissue. At the inner margin the necrotic process had invaded the pericardium and set up acute pericarditis. The œsophagus was firmly adherent to the right bronchus, and a narrow sinus about three-quarters of an inch long

led from a minute valve-like opening in the œsophagus to a small ragged opening in one of the main divisions of the right bronchus. There were no signs of tubercle or of caseating or suppurating bronchial glands. The gangrene was undoubtedly due to the passage from the œsophagus into the lung of some irritative material (probably decomposing food stuffs) along the sinus above mentioned. Whether this sinus was the remains of a glandular abscess or was caused by the passage of some pointed foreign body from the œsophagus was doubtful. The limitation of the gangrene of the anterior region of the lung, and the implication of all three lobes in a single cavity, were worthy of notice. Pericarditis appeared to be a rare complication of pulmonary ganerene. The indications for surgical interference were sufficiently clear—viz., imperfect communication of the gangrenous area with the bronchi, failure of expectant treatment, and signs of a cavity in an accessible situation. The amount of repair which took place under unfavourable circumstances was very encouraging. An earlier operation might have saved the life of the patient.—Mr. GODLEE mentioned a case of gangrenous cavity at the apex of one lung, which was opened and drained; the pleura was not adherent, necessitating the sewing of the pulmonary to the costal pleura before the abscess was opened. The child died in two days, and then it was found that another gangrenous cavity existed in the opposite lung.—Dr. BROADBENT said he only saw in one case an attempt made to reach a gangrenous cavity in the base of the lung; but no relief followed.—Dr. BARLOW related a case of gangrenous mediastinal abscess involving the lung by extension, and into which a sinus lead from the gullet; probably the gangrene was secondary to perforation of the gullet by a foreign body. In cases of gangrene due to discharge of a bronchial abscess into a bronchus, the œsophagus has not been in communication with the abscess cavity.

Dr. ALEXANDER MORISON related a case of Extensive Ankylosis of the Skeleton, with Diaphragmatic Breathing. The patient was a male, aged forty-four, of neurotic and rheumatic family history, and himself rheumatic. His present condition seemed likewise to be related to an attack of gonorrhœa. The joints chiefly involved were both shoulders, both hips, all the ribs, and the vertebral column. The knees were almost but not quite stiff, the head was twisted to the left shoulder, he had talipes equinus of the right ankle, and some softening of the inferior maxilla and the auditory ossicles. Thoracic respiration was abolished, and its place taken by exaggerated abdominal breathing. The expiratory capacity of the chest was reduced to 96 cubic inches from a probable average of 156 cubic inches. The pectoral muscles were atrophic. The daily excretion of urea ranged from 210 to 276 grains per diem, and the patient had recently begun to deposit fat in excess. Dr. Morison remarked on the influence of prolonged rest in favouring ankylosis, on the relation of gonorrhœa to articular disorganisation, on the gradual substitution of abdominal for thoracic respiration, and on the defective metabolism as evidenced by the fat formation consequent thereon.—Dr. BROADBENT said he had seen two cases in which the fixation of the bony framework was as complete. Such cases seemed to show that diaphragmatic respiration was the more important of the two; when diaphragmatic respiration was lost the distress was much greater than when the respiration was carried on by the diaphragm alone. This was especially well marked when the diaphragm was flappy, and yielded to the atmospheric pressure.—Mr. GODLEE mentioned the case of a man who had a fracture of the spine, causing paralysis of the abdominal and inspiratory muscles. As the injury was below the origin of the phrenic nerve, diaphragmatic respiration still went on for some time. He was, however, unable to cough, except by compressing the sides of the chest with his hands, and ultimately the lungs became choked with mucus, and the man died. Mr. Godlee said it would be very interesting to know whether these cases of general ankylosis were always associated with gonorrhœal rheumatism. He had seen one case in an obviously rheumatic subject, who came to him in the first instance with chronic synovitis of the knee joint. Some years later the patient contracted gonorrhœa, and then one joint after another became fixed, until ultimately his hips, knees, and spine were quite ankylosed. He was still alive, and fairly comfortable.—Mr. JONATHAN HUTCHINSON said, with reference to the question as to the causation, that although the great majority of cases of ankylosing rheumatism were consequent on gonorrhœa, yet there was a certain proportion of cases in which gonorrhœa had nothing to do with it. He expressed the opinion that gonorrhœal rheumatism occurred almost exclusively in those who had a strong inherited tendency to rheumatic gout. He had never seen a severe case in which there was not a clear and definite history of gout or rheumatism.—Dr. BARLOW mentioned the case of a man who had an attack of gonorrhœa followed by extensive ankylosis of a great many joints. Since that time he had seen four cases not quite as bad as the case brought before them by Dr. Morison, and of the four only one could be definitely connected with gonorrhœa. He had also seen the disease in two children, in one case following measles. He asked whether the man had been getting progressively shorter: also whether Dr. Morison had referred to a case in the Transactions about eight years ago by Dr. Allen Sturge, under the head of spondylitis.—Dr. PASTEUR observed that the case threw light on a case of his own of ankylosis in a child.—Dr. ANGEL MONEY had seen a case in a young girl, though not as bad as the case in question. In some of these cases it was very probable that the disease was the outcome of a peripheral neuritis. There was very rapid wasting of the muscles, with progressive muscular atrophy, glossy skin, and herpetic eruptions. He suggested that lead poisoning, as productive of gout and peripheral neuritis, might possess some influence in this direction.—Dr. MORISON, in reply, said that in the case quoted by Mr. Godlee there was no thoracic paralysis. He added that in a second case there was a distinct gouty history.

Dr. STEPHEN MACKENZIE read a case of Peculiar Skin Disease—possibly a form of Lupus. The patient, a woman, aged thirty-five, was under treatment for auditory vertigo when the disease first appeared, about six years ago. Since then she had had recurrences and subsidences, the former generally occurring in the autumn or winter. She had never had syphilis. The eruption had always been practically confined to the backs of the (upper) arms and the calves of the legs, but extended on the left arm below the elbow. In one attack spots occurred on the ears. The eruption consisted of nodules or tubercles and erythema, the former slowly disintegrating and leaving scars, so that the general appearance of the affected parts was an erythema interspersed with circular scars. There had been no pain, and only slight itching at the commencement of the attacks. Attention was directed to—1. The symmetry of the eruption. 2. Its anatomical characters. 3. That it destroys the skin, leaving scars. No precisely similar case was known to have been observed, and discussion was invited on its nature. The following diagnoses were discussed:—1. Dermatitis medicamentosa. 2. Syphilis. 3. Lupus, or an ally. Against a drug eruption, the identity of the eruption whilst the patient was taking a variety of medicines, and the fact that the disease had appeared when the patient had not taken any drugs for weeks or months, were held to be conclusive. Against syphilis, besides the negative history, the symmetry and recurrence taken together were held to be strongly antagonistic, and that the eruption had subsided without anti-syphilitic treatment being employed. With regard to lupus, it was pointed out that the age of the patient, the symmetry of the disease, the absence of ulceration, and the subsidences were against lupus vulgaris; whilst the age, symmetry, and erythema were in favour of lupus erythematosus. On the other hand, the nodules or tubercles, the absence of scales, and the occurrence of the eruption on covered parts of the skin were different to what was usually observed in lupus erythematosus. It was thus clear that the disease conformed to the type of neither lupus vulgaris nor erythematosus, though it resembled the latter in several respects. The author concluded that, though not definitely lupus, he regarded the disease as belonging to the lupus family.—Mr. JONATHAN HUTCHINSON observed that it was a very interesting and a very peculiar case. He had had several cases very, if not quite, like the case related by Dr. Mackenzie, and had mentioned two such in his book on syphilis, in neither of which could he ever establish his diagnosis of syphilis. It occurred in two married ladies of respectable position in society. The symptoms did not yield to mercurial treatment as rapidly as syphilitic manifestations generally did. He had seen some other cases less well marked. He added that the eruption lacked the serpiginous character which was held to be characteristic of lupus; moreover, lupus was very rarely symmetrical.

PATHOLOGICAL SOCIETY OF LONDON.

Syphilitic Disease of the Knee Joint.—Blood Calculi in Ovaries.—Fœtal Ovarian Tumours.—Encysted Vesical Calculus.—Varicocele, a Spontaneous Variation in the Spermatic Veins.

THE first ordinary meeting of this Society for the present session was held on Oct. 16th, Sir James Paget, F.R.S., President, in the chair.

Mr. JONATHAN HUTCHINSON, jun., showed a specimen of Syphilitic Disease of the Knee Joint as illustrating a form of specific joint disease not, perhaps, previously recognised in this country. The right knee was the only joint affected, and it was obtained from the body of a sailor, aged twenty-three, who died of syphilitic stricture of the rectum and chronic nephritis. The patella was much thickened and had left its normal groove on the femur to articulate with a ridge on the outer side of the external condyle, in which the cartilage was greatly hypertrophied. The internal condyle of the femur had lost its cartilage and was adherent to the internal tuberosity of the tibia by firm fibrous bands, in which was merged the internal semilunar cartilage. The external tuberosity of the tibia was roughened on its cartilaginous surface. In the centre of the ligamentum mucosum was a leathery gummatous mass, which the microscope showed to consist of ill-defined cells and fibrous tissue. There were no nodes about the bones and the synovial membrane and ligaments were practically healthy, the chief seat of the disease being in the cartilaginous surfaces of the joints. Unlike chronic rheumatic arthritis, there was no eburnation, although at parts there were grooves in the cartilage, especially one deep one between the facettes for the patella and external tuberosity of the tibia. The changes appeared to be similar to those described by Professor Virchow as due to syphilis, in so far as their chief seat lay in the cartilage (see *Berlin. klinische Wochenschrift*, August 18th, 1884), and to differ from the more common cases of tertiary syphilitic joint disease, in which periosteal nodes or peri-articular gummata were the chief features. Both kidneys were greatly enlarged, weighing together no less than thirty-five ounces, were firm in consistence, pink in colour, mottled with whiter patches, but no isolated gummata were found. Sections showed interstitial cellular exudation, obliteration of many of the Malpighian bodies, and comparatively slight involvement of the tubes. Most probably it was a form of diffuse syphilitic disease. The rectum revealed a fibrous stricture, with extensive ulceration round it. The patient was a Swede, and no clear history of primary disease could be obtained from him; he exhibited no signs of inherited syphilis.—Mr. ROGER WILLIAMS saw some time ago a knee joint which was suspected to contain a foreign body; this proved on opening to be a thickened synovial fringe, and the thickening under the microscope was seen to be gummatous infiltration.—Mr. W. ADAMS had not seen gummata within a joint, though he had frequently observed joint disease following primary periosteal inflammation; this caused great enlargement of the bone, and rendered the case difficult to diagnose from sarcoma.—Dr. QUAIN inquired if the urine had been examined.—Mr. HUTCHINSON could not state positively as to the urine. He pointed out the difference between periosteal nodes and gummata and those occurring within the joint.

Dr. H. W. G. MACKENZIE exhibited a specimen of Concretions in the Ovaries from a woman aged forty-one, who had suffered from menorrhagia for two years, and had a large fibro-myoma of the uterus. She had disease of the mitral valve and fatty degeneration of the liver. The uterus was uniformly distended by the tumour, which was a globular mass about four inches in diameter growing inwards from the uterine wall on the left. The uterine walls were themselves hypertrophied. The ovaries, which were enlarged, contained a large number of black, hard, flat concretions of sizes varying from a coriander seed to a bean, of irregular shape, smooth, firm, and hard, although they could be cut with a knife. The concretions were in cavities, two or three together. Microscopic examination of a thin section showed absence of structure. The concretions were exceedingly insoluble in acid and alkaline solutions, and were only slowly dissolved by digestion in the gastric juice. They probably consisted of coagulated proteids, and were akin to the colloid concretions found in the prostate and in old hæmorrhages. The specimen was a very uncommon one, perhaps unique. The enlargement of the organs was probably due to chronic congestion, the consequence of the large uterine growth. The concretions, it was suggested, were derived from hæmorrhages into Graafian follicles, the effused blood having undergone a rare colloid change.—Mr. ALBAN DORAN referred to a paper by Patenko in Virchow's *Archiv* on Corpora Fibrosa of the Ovaries, in which he discussed the pathology of ovarian clots. He himself had often seen hæmorrhage into ovarian fibromata, but he had never before noticed calculi.

Mr. ALBAN DORAN then exhibited a pair of Ovarian Tumours, removed after death from an infant (a seven months' child) which survived its birth but a few minutes. Mr. C. Hooper of Aylesbury, who attended the case, reported that the infant's abdomen was distended with ascitic fluid and the superficial veins were engorged, as in malignant tumours of the ovary in the adult. Each tumour looked like a cystic kidney when fresh, and consisted of a single cystic cavity surrounded by a thin wall composed of a highly reticulated tissue. The trabeculæ which traversed this tissue in all directions were composed of collections of round cells in a transparent matrix, an arrangement recalling the structure of the inter-follicular tissue of the ovary in an earlier stage of fœtal life than that which this patient had attained. The growth appeared to represent persistence and hyperplasia of the entire embryonic tissue of the parenchyma of the ovary rather than round-celled sarcoma, which, even when congenital, was in every respect of a different character, as proved by a recent case described by Dr. John Phillips. Graafian follicles were found in the substance of the tumour, which therefore originated in the ovarian parenchyma, and not in the hilum, but the tumour was clearly of extra-follicular origin. The cavities and the large central cyst appeared to be the result of breaking-down of the tumour substance; they bore no epithelial lining. The tumours thus bore no resemblance to the common multilocular ovarian cyst. The larger of the pair had been presented by Mr. Thornton to the Museum of the College of Surgeons.—Mr. J. B. SUTTON referred to the fact that in many amphibians the ovaries contained a central cavity surrounded by ova, but he knew of no instance of this kind in mammals.

Mr. BRUCE CLARKE brought forward a case of Encysted Vesical Calculus. The man, fifty-five years of age, from whom the bladder was removed, had been twice operated on for stone, once for one in the urethra and once for a vesical calculus. On a third and last occasion the bladder was explored, but no calculus could be detected, only some phosphatic material in the urethra being found. At the post-mortem examination a sacculus was discovered containing a calculus, and communicating with the bladder by a very minute aperture, which barely admitted a probe. The stone had almost ulcerated through into the peritoneum. He considered its position too far from the prostate to have originated there, and regarded it rather as a small vesical calculus which had slipped into a sacculus, and then had afterwards, by gradual additions, grown to its present size.—Mr. ROGER WILLIAMS held that if the stone had been chiefly formed in the sacculus, it would have an irregularly laminated structure, owing to the additions to it taking place on one side only.

Mr. W. G. SPENCER read a paper entitled "Varicocele, a Spontaneous Variation in the Spermatic Veins." The author showed a number of transverse sections at various levels which had been made of the spermatic cord at all ages. Three chief points were illustrated: (*a*) the large number of veins of all sizes present in the spermatic cord at all ages, (*b*) the number and size of the veins were greater on the left side than on the right, and (*c*) the presence on the right side especially of very minute veins, and of other veins in which the lumen was imperceptible, and amongst these were groups of cells arranged in a concentric manner as if representing obliterated veins. With regard to *a*, the spermatic veins were at first the veins of the Wolffian body, a very vascular organ. Statistics and clinical experience showed that every variety existed between veins that could be just felt and the largest varicocele. Examination of the whole French male population was made for the army, and of those about 32 per 1000 required treatment for varicocele before entrance, while a very large number were admitted without treatment, because the presence of varicocele was not inconsistent in them with active service; some statistics gave varicoceles in

60 per cent. of all those examined. Varicoceles had been described in childhood, and many before puberty; these variations in the size and number of the spermatic veins were developmental in origin, and were hereditary in some cases, and thus comparable to other instances of "spontaneous variation." All the conditions called at present "causes of varicocele" were thus not really such; they merely kept filled with blood veins already present. A large number were anotomical in character, yet conditions which existed in all could not be the causes of disease only in some. Increased vascularity at puberty was natural, it could in no way cause disease, but it might tend to fill veins which were already present, and hence cause a varicocele to appear at puberty; anything increasing the blood supply to the testis, or obstructing its return, filled those veins. The position of the sigmoid flexure and the passage of fæces were also natural conditions, and there were no recorded cases of varicocele due to the supposed collection of fæces in the sigmoid flexure. Mr. Gould's theory of a true venous hypertrophy at puberty was not supported by any experimental evidence. Referring to *b*, it was interesting, with respect to the greater number of varicoceles on the left side, to note that the left kidney and testis were larger, and the latter was more advanced in its development than the right. This might have to do with the persistence of the left arch of the aorta in the embryo, whilst the right arch became obliterated; no vena cava was formed on the left side, but the left vein had to join the left renal and cross the vertebral column. The embryo was said to be constantly on its left side. With regard to *c* on the right side, the very minute veins and the groups of concentrically arranged cells appeared to take the place of many of the larger veins on the left side. In some sections from the left side the veins were not very much larger than on the corresponding right, and there were also seen the above conditions; but, where on the left side the veins were numerous and large, the appearance of very minute veins or of concentrically arranged cells was scarcely seen. This apparent obliteration of veins was seen in young specimens following the disappearance of the Wolffian body; an arrest in the retrograde process left many veins persistent, or, in other words, the spontaneous variation in the size of the spermatic veins was in inverse ratio to the amount of obliteration.—Mr. J. B. SUTTON referred to a paper he had published five years ago, advocating a similar theory. In monkeys varicocele was common, and was more frequent on the left side, whereas in them the rectum went down the centre of the pelvis. The development of varicocele about puberty was the result of an inherited tendency to a physiological congestion at that time which corresponded somewhat to the rutting season in animals.—Mr. RAYMOND JOHNSON referred to a case, recently in University College Hospital, of a man who exhibited signs of complete transposition of viscera, and who had a right varicocele.—Mr. J. HUTCHINSON, jun., did not think there was much difference in weight between the left testis and the right. Subperitoneal lipomata travelling down the inguinal canal were thrice as common on the left side as on the right, though no difference in size of the inguinal canal existed to explain it.—Mr. PEARCE GOULD said that the main point established was that varicocele was a dilatation of pre-existing veins, but it had not been shown why they became enlarged. Varicocele, together with varix of veins of the lower extremities, could often not be regarded as a pathological condition, nor even as a serious clinical matter.—Mr. BRUCE CLARKE gave the history of a varicocele which formed within five days after the patient had been thrown from a horse.—Mr. WILBERFORCE SMITH had seen varicocele often as part of a general venous enlargement.—Mr. SPENCER, in reply, held that spontaneous variations only, and not acquired ones, could be inherited.

The following card specimens were shown:—

Mr. RAYMOND JOHNSON (for Mr. Heath): Large Retroperitoneal Tumour.

Dr. H. W. G. MACKENZIE: Ulceration of Œsophagus in diphtheria.

Sir JAMES PAGET gave notice that the Council had decided to set aside Dec. 4th and 18th for the discussion of the Morbid Anatomy and Pathology of Chronic Alcoholism. The names of those desiring to exhibit specimens and take part in the debate would be received by Dr. Sidney Coupland, the medical secretary.

MEDICAL SOCIETY OF LONDON.

President's Address.—Laparotomy for Acute Intestinal Obstruction.—Mediastinal Abscess treated by Trephining.

THE first meeting of the Medical Society for the present session took place on Oct. 15th, the President, Sir William MacCormac, occupying the chair.

The PRESIDENT congratulated the Society on its prosperity in the past and its promises for the future. The clinical evenings had become an increasingly important feature, a most valuable series of illustrative cases having been presented and discussed. The financial condition of the Society was excellent, the unexpected legacy of Dr. Alvarenga, a Spanish surgeon, amounting to £420, being a welcome addition to the funds. Sir William MacCormac then referred to the death of four Fellows during the past year—Mr. Teevan, Dr. Greenhalgh, Dr. Camps, and Mr. Hood; and proceeded to deliver an address on "The Old Surgery and the New." He often thought we were too apt in the preoccupation of the present to forget what a great amount of work was accomplished by our predecessors, and how completely in many instances they fashioned the pathway which had led to many of our modern achievements. Only to mention the honoured name of Celsus, we found several of the operations described by him were still performed, and he had recorded his experience, or rather, the experiences of his time, with a force and precision that never, probably, had been surpassed. The traditions of the past were, the President supposed, a part of the discipline of the surgical mind; at the same time, one could not look back to some of the procedures of our ancestors without horror. Never were the arms of surgery, literally as well as metaphorically, so well appointed as they were now. People spoke of conservative surgery; but all surgery, in strictness, was conservative; in fact, to speak of surgery as otherwise was a *non est*. The exigencies of practical work perhaps required divisions; but, whilst it did not follow that the physician must be a surgeon, it was quite needful that the surgeon be a physician also. The future of surgery, he was of opinion, would be found in a greater breadth of culture on the part of those who practised it, and in dealing with the body as a whole, as well as looking to the various requirements of its parts. Our most cultured intelligence was none too much to devote to the noble object of appeasing anguish, and directing to safe issues the casualties that beset the most wondrous structure this world contained. If one of the old surgeons should return to earth, how greatly, for instance, would he be astonished at the simplicity of the procedure now adopted for the reduction of dislocation. The pulleys, the racks, appliances more befitting a room of torture than the operating theatre of a hospital, were replaced by an assistant or two, a sheet or napkin, or often the unaided *tour de maître* of the surgeon himself. On the manner of dealing with wounds it was unnecessary to speak: everyone must admit the vast progress which had been made. Within the last few years it had amounted to revolution; as contrasted with the methods of ancient days, it was safe and painless; it was no longer needful to insist upon the necessity of aseptic and antiseptic procedures, of strictest cleanliness in air, person, and environment; and the relative rarity of so-called hospital diseases, blood poisoning, traumatic fever, erysipelas, and gangrene bespoke the improved hygiene of modern times. Secondary hæmorrhage was much less frequent; wounds, as a rule, healed by first intention; the tendency to pain and inflammation was abated. In every branch of surgery progress had been made. Our fathers would look on with amazement could they but witness the ablation of a diseased ovary, spleen, or kidney; the modern methods of dealing with stone in the bladder; the treatment of aneurysm by ligature or by compression, instead of the former evacuation of the sac with its attendant risks; the radical cure of hernia, and much besides. Tubercular disease under a multitude of circumstances had to be dealt with by the surgeon, and its etiology was surely better determined now that it was before. Among animal poisons, syphilis, glanders, and the poison of hydrophobia or of tetanus we had as yet been unable to remove from our midst, yet they were managed, on the whole, more successfully than in days gone by, and their causes and manner of treatment were becoming better known. Cancer we had hitherto striven against in vain; its etiology was among the problems which

awaited solution, he would fain hope, in a near future. Yet we could accurately localise a tumour or abscess in the brain, and in many cases relieve the patient from an otherwise certain death. We dealt with the formerly sealed cavity of the skull and its precious contents almost as freely as with other parts of the body. To discover the precise position, and afterwards to successfully remove a tumour of the spinal cord, was an achievement of which any body of surgeons might be proud. Diseases of the lungs and chest cavity were directly dealt with in a manner heretofore unthought of. And as for the abdomen, an "Open, Sesame" had been found for every organ within its cavity. Cases both of disease and injury had alike been submitted to active intervention at the hands of the modern surgeon, whose courage had been amply justified by his success. The field of practice was vast, the subjects of inquiry were multitudinous, and surgery was always progressive; but the mind of man itself was progressive. New triumphs of skill, a deeper insight into the causes of premature human destruction, and more effective means of dealing with them, awaited, without question, the surgeon of the future, as they had more or less attended the surgeon of the present, and his brother of the days that were gone by. Yet medicine and surgery were not two sciences, but one science, aiding and aided, having the same end in view, and any disparaging comparison of one in regard of the other was no less futile than it was absurd. The Medical Society in its purpose and its work exemplified the union of the two great branches of our profession in their common task of alleviating all kinds of suffering, and prolonging, as far as might be, the span of a healthy life.

A vote of thanks to the President for his able address was proposed by Dr. Theodore Williams and seconded by Mr. W. Adams.

Mr. EDMUND OWEN then read notes of a case of Acute Intestinal Obstruction, successfully treated by abdominal section, the details of which will be found on page 765. The case illustrated the comparative safety of opening the abdomen with clean hands and the advantage of operating without delay.—Sir WILLIAM MAC CORMAC was reminded of a case to which he was called a little while ago, the patient, a strong farmer, having severe abdominal pain, vomiting, and rise of temperature. Operation was recommended, but the patient refused, and died twelve hours later, perforation of a gangrenous vermiform appendix being revealed post mortem.—Mr. KNOWSLEY THORNTON recently saw a little boy with well-marked symptoms of acute intestinal obstruction. The parents refused operation till late, when peritonitis had set in, and on releasing the band the gut was found perforated.—Dr. DE HAVILLAND HALL related a case he had seen at Westminster Hospital. A cabman was admitted almost collapsed and vomiting, with a history of acute obstruction. Laparotomy was performed, and no band was found, but it was presumed that a kink in the gut was undone. The sutures closing the abdominal wound, and applied after a new method, gave way thirty-six hours afterwards, and many coils of intestines escaped; they were, however, returned, and the man made a good recovery.—Mr. BALLANCE described two cases of obstruction; one in which, treated by daily enemata, on the ninth day, after a copious clyster, the patient felt something give way, and then got well. In the second case, he performed laparotomy, and found a large number of bands in the right iliac fossa. These were so complicated that he was unable to release them all, and the patient succumbed unrelieved.—Mr. OWEN, in reply, thought it a good rule to explore any hernia that might be found coexisting with acute obstruction, even though no symptoms pointed to the hernia itself. It was to him a matter of great wonder that the case related by Dr. Hall had not yet been recorded.

Mr. CHARLES A. BALLANCE read an interesting paper on a case in which the gladiolus sterni was trephined for pus pent up in the anterior mediastinum. The patient, aged thirty-five, was admitted into St. Thomas's Home on August 31st, 1887, complaining of a discharging abscess over the front of the upper part of the chest, accompanied by constant and severe pain and great tenderness along the breast bone; also of fever, anorexia, loss of strength, and want of sleep. There was a history of inflammation of the lungs two years before; for three months there had been mid-sternal pain, and a lump had formed, into which an incision had been made and much pus evacuated. This was followed by a discharging sinus, which, on admission, was found to lead down to bare bone at the left second costo-sternal articulation, and the probe could be passed still further into a space behind the gladiolus. The sternum itself was acutely tender on palpation, and was the seat of constant dull, aching pain. Another swelling had formed over the left fourth, fifth, and sixth costal cartilages, and the discharge from the old sinus was less copious than usual. Two days after admission the lower swelling was incised, and the old sinus laid freely open. During the next five days rigors occurred, and it was decided to explore behind the sternum for pent-up pus. Two trephine holes were made, and the intervening portion of bone cut away with forceps. The bone removed was found permeated by pus, and on looking into the anterior mediastinum a layer of thick creamy pus was seen on the front of the pericardium; this was carefully syringed away, and much carious bone was then scraped by means of a Volkmann's spoon from behind the sternum. Finally the wound was irrigated with sublimate lotion, packed with wet sublimate dressing, and covered with a dry dressing of the same character externally. The patient made a rapid and complete recovery, the sternal opening becoming filled in by fibrous tissue. Mr. Ballance was not aware of any case in which treatment had been applied to the posterior surface of the gladiolus. He took it from the first that the illness of the patient two years before had been puerperal or septic in origin, and had left some focus of disease in the interpleural space. By scraping the posterior surface of the gladiolus he could not hope to eradicate all the germs of the disease, and the completely successful issue of the case was, he thought, in no small degree due to the constant association of the diseased surfaces during convalescence with corrosive sublimate. The sternum had been trephined for abscess or foreign body in the mediastinum, for paracentesis pericardii, and the operation had been suggested in order to facilitate the ligation of the innominate artery. The two most prominent symptoms of mediastinal suppuration appeared to be dyspnœa and constant severe pain. A carefully compiled list of published cases of mediastinal suppuration accompanied the paper.—Mr. M. SHEILD had twice seen pyæmic abscesses perforating the sternum and giving rise to pulsating swelling. They followed acute necrosis; both were opened, and both terminated favourably.—Mr. DAVIES-COLLEY inquired what were the exact symptoms that pointed to abscess behind the sternum.—Mr. BALLANCE replied that the sudden cessation of discharge from two sinuses leading to the anterior mediastinum, accompanied by rigors, pointed to retained pus.

Reviews and Notices of Books.

Die Krankheit Kaiser Friedrich des Dritten, dargestellt nach amtlichen Quellen und den im Königlichen Hausministerium niedergelegten Berichten der Aerzte Prof. BARDELEBEN, Generalarzt I. Kl. und Kgl. Geh. Ober-Med. Rath in Berlin; Prof. von BERGMANN, Generalarzt I. Kl. und Geh. Med. Rath in Berlin; Dr. BRAMANN, erster Assistent der Kgl. chirurg. Klinik in Berlin; Prof. GERHARDT, Geh. Med. Rath in Berlin; Prof. KUSSMAUL, Geheimer Rath in Strassburg i. E.; Dr. LANDGRAF, Stabsarzt in Berlin; Dr. MORITZ SCHMIDT, Sanitätsrath in Frankfurt-a.-M.; Prof. SCHRÖTTER, Vorstand der Laryngol. Klinik in Wien; Prof. TOBOLD, Geh. Sanitätsrath in Berlin; Prof. WALDEYER, Geh. Med. Rath in Berlin. 8vo, pp. 103. Kaiserl. Reichsdruckerei, Berlin. 1888.

The Fatal Illness of Frederick the Noble. By Sir MORELL MACKENZIE. London: Sampson Low and Co. 1888.

[FIRST NOTICE.]

IT is neither our desire nor intention to discuss here the volumes before us on political, social, or ethical grounds. Our remarks will be confined solely to a scientific criticism of the main points in the history of the fatal illness of the late Emperor. That the august Sovereign succumbed to malignant disease of the larynx is now beyond doubt, since the fact was verified by post-mortem examination and recorded in the Protocol signed by both English and German doctors. In this, at least, they were agreed.

It will be remembered that the first symptom—hoarse-

ness—was experienced by the then Crown Prince in January, 1887. On March 6th Professor Gerhardt asserts that he detected, by laryngoscopic examination, a small growth at the posterior part of the left vocal cord. This he endeavoured to destroy by the electric cautery, which was employed on fifteen occasions, the last of these being on April 7th. As no cicatrisation followed, and as the growth recurred, it was *suspected* that the disease was of a cancerous nature. This suspicion in Professor Gerhardt's mind was strengthened on May 15th, when the patient returned from a month's sojourn at Ems. It was ascertained that whereas the affected cord had hitherto been freely movable during phonation, it had now become sluggish, a sign upon which considerable stress was laid. Three days later, after a consultation between von Lauer, Tobold, Wegner, Schrader, von Bergmann, and Gerhardt, the diagnosis of cancer was unanimously arrived at. The grounds for this diagnosis were as follows: (1) The rapid regrowth of the tumour; (2) the hardness and unevenness of the growth; (3) the continued non-healing of the wound on the inner part of the tumour; (4) the defective mobility of the cord; (5) the age of the patient; (6) the situation of the growth; (7) the exclusion of tuberculosis and other specific disease. On May 20th preparations were completed for the performance of *thyrotomy* by Professor von Bergmann. On the evening of the same day Sir Morell (then Dr.) Mackenzie first saw the case, and pronounced the diagnosis of cancer as being unwarranted by the facts as yet observed. He advised that portions of the growth should be removed by the *endo-laryngeal method* and submitted to microscopical examination. This mode of investigation, however, did not yield satisfactory results, since, although it was repeatedly resorted to, it failed to give the required corroborative evidence, until the disease had made such ravages that total extirpation of the larynx and tracheotomy were the only feasible alternative operations. For this failure we do not cast the least reflection on Sir M. Mackenzie's manipulative skill or on Professor Virchow's pathological research; it was incidental to the conditions under which the experiments were made. Now, although Professor Virchow's reports seemed to favour the opinion of Sir M. Mackenzie, they were only of negative value. He did not find *infiltration* of the tissues with epithelial elements, but it did not necessarily follow that none existed, for only portions of the growth were removed. Professor Virchow was inclined to consider the disease as *pachydermia verrucosa laryngis*—a warty *elevation* of a thickened mucous membrane; but his statements were made with reservation, and, taking an unbiased view of them, one has now no difficulty in reconciling them with the assumption that the malady was malignant from the first. Was it malignant from the first? We feel constrained to subscribe to this contention. "Traumatic malignancy" is now an established theory in pathological science, and, acting on this, Sir M. Mackenzie suggests that the original growth may have been benign, and that the conversion process into cancer may have been effected by the rapidly repeated cauterisations of Professor Gerhardt. Medicine is an inexact science, and we cannot foretell with certainty results of imperfectly determined factors; but the balance of evidence in this case seems to us to speak forcibly in favour of Professor Gerhardt's deliverance. Nor do we think Sir M. Mackenzie makes out a better case against the Professor when he alleges that the aforesaid cauterisations were possibly the cause of the destructive perichondritis which was so pronounced a feature in the late Emperor's illness. *A priori* the probabilities are against it, besides which there was sufficient irritation by the infiltrating growth, which Sir Morell admits not unlikely began in the deeper tissues. To say the least, Professor Gerhardt, although we do not exculpate him from all professional blame, cannot be said to have altogether the worst of the contention.

Admitting that Sir M. Mackenzie had conscientious doubts of the clinical nature of the malady, whilst in his belief the proposed thyrotomy was an operation at once destructive to the voice and highly dangerous to life, no one can say that he was not justified in advising a postponement of the operation for a reasonable period—that is, until the development of the case had declared for or against his views. Nevertheless, it was unfortunate that circumstances conspired against an earlier understanding and declaration which should have indicated the time for more decisive action. According to Professors Gerhardt and von Bergmann, it was understood that Sir M. Mackenzie was to take over the conduct of the treatment of the Crown Prince by the endo-laryngeal method on two conditions—(1) that every particle removed should be submitted to Professor Virchow for microscopical examination, and (2) that Sir M. Mackenzie should report to his German *confrères* as soon as he found his procedure had failed, if such should happen. The first of these conditions was fully carried out. It is on the second that the German doctors base their charge against Sir M. Mackenzie. Sir Morell replies that the disease ran a very abnormal course; at one time giving rise to the worst apprehensions, and anon subsiding with unwonted rapidity. Now, although in addition to his English colleagues Sir M. Mackenzie was associated with Surgeon-General Wegner, the body physician of the Prince, and Dr. Landgraf, the main responsibility rested upon himself. Finding that in spite of changes of climate and the most assiduous attention, his patient on the whole grew worse rather than better, it is matter of regret that he did not sooner than November advise a consultation. For some reason or other Professor Gerhardt seems to have dropped out of the scene; and thus it happened that when the Prince became worse at San Remo, help was sought from other sources. Schrötter of Vienna, Krause of Berlin, and Moritz Schmidt of Frankfort were ordered to attend a consultation. The result of the examination was that the original diagnosis of Professor Gerhardt was confirmed, and the Prince was informed that he must choose between complete extirpation of the larnyx and tracheotomy, when the latter should become necessary. He declared for the latter alternative. It was intended that Professor von Bergmann should perform the operation, but the condition of the Crown Prince became so serious that, ere that surgeon could arrive from Berlin, Dr. Bramann, his assistant, who had had great experience of tracheotomy, was requested to undertake it. This seems to have been carried out without any great difficulty; and yet here, again, there arose a source of complaint and accusation. Sir M. Mackenzie and Mr. Hovell assert that the windpipe was opened to the right of the middle line, a circumstance which was alleged to account in some measure for the subsequent difficulty in adjusting the tracheotomy tube. Great pains have been taken by Sir M. Mackenzie in his work before us to explain this both by letterpress and diagrams. Whilst thus portraying Dr. Bramann's alleged maladroitness, Sir M. Mackenzie magnanimously admits that under all the circumstances Dr. Bramann acquitted himself fairly well.

There seems to have been a disagreement between Sir M. Mackenzie and Dr. Bramann as to the advisability of administering chloroform; but as the latter was to be the operator, and he requested anæsthesia, the former yielded, though with misgiving. We are not aware—except through Sir M. Mackenzie's assertion of the practice generally adopted at the Throat Hospital—that surgeons, as a rule, prefer to perform tracheotomy merely by the aid of local anæsthesia. Speaking from our own experience and knowledge, we

should say that performing it whilst the patient retains sensibility is rather the exception. However, this is a mere detail, and one which we deem unworthy of further comment.

Now arose the difficulty with the cannulæ, which Professor von Bergmann and Sir M. Mackenzie in turn attributed to the faulty instruments of the other. It is almost incredible that on such a matter they could not have agreed upon a mutually satisfactory understanding, and yet upon this very point hinges some of the most serious charges hurled against one another by the contending parties. Professor von Bergmann is accused of using cannulæ utterly unsuited to the case, cannulæ which were too long or too curved, and which, by "cutting into the windpipe," caused the blood-tinged, offensive discharge that was so copious, and protracted in its duration. Professor von Bergmann, in defence of himself and Dr. Bramann, replies that the tubes were specially selected for the case, and that, instead of their doing damage, they were calculated to give the most efficient relief to the sufferer. He, moreover, asserts that the purulent and sanious discharge was derived from the ulcerous and necrotic malignant laryngeal growth, and that it trickled down the windpipe and was coughed up through the tracheotomy tube. Support is certainly lent to this hypothesis by the local extension of the disease observed during life, and by the condition found after death. On one occasion the tube could not be kept *in situ*, and Sir M. Mackenzie sent an urgent message for Professor von Bergmann to attend. It was on this occasion that the incident arose which gave foundation for Sir M. Mackenzie's most serious indictment against Professor von Bergmann. By the latter's own admission, he failed in more than one attempt to get a tube *into the windpipe*, after which his assistant, Dr. Bramann, succeeded; but then one has to keep in mind the context. Professor von Bergmann says that the cancerous growth of the larynx had extended to the tracheotomy wound, and had infiltrated the walls of the latter—this, be it remembered, was observed at the necropsy,—so that the original track of the cannula was deepened and made irregular. Sir M. Mackenzie accuses Professor von Bergmann of pushing his finger deeply into the wound, as though this was prompted by nervousness; whereas Professor von Bergmann justifies the act on the grounds that it was necessary to clear away some cancerous granulations in order to make a path for the tube. Nor does the indictment stop here, for it is written and figured in Sir M. Mackenzie's book that Professor von Bergmann actually thrust the tube amongst the tissues in front of the trachea, causing a false passage, which accounted for the hæmorrhage at the time and the protracted suppuration afterwards. One can hardly bring oneself to believe that a surgeon of Professor von Bergmann's acknowledged learning and skill could so allow his head to misguide his hand. But we cannot in this matter stand as the arbiter of the opponents' fates. They must leave their grievances and differences to the opinion of the profession to which they belong. It is a question of the credibility of witnesses.

We may be wrong in our estimate, but, guided by the light of the published accounts before us, we do not glean from the narrative that Sir M. Mackenzie met seriously and seriatim the grounds advanced by Professor Gerhardt as the basis of his early diagnosis. We do not mean for one moment to assert that he is chargeable with carelessness on this head; we only say that we had hoped to find a fuller logical discussion of Professor Gerhardt's propositions. Referring again to the microscopical examination, we would add that, in our opinion, too much seems to have been expected of it. Too much stress was laid upon the negative evidence when considered collaterally with the clinical symptoms. We have even known the positive signs adduced lead to serious fallacy. In one case a tongue was removed because epithelial collections were obtained in scrapings from an ulcer which after the operation was proved to be purely gummatous.

After carefully weighing all the facts and arguments with a full sense of the gravity of the issue, we must express our opinion that Professor Gerhardt's original diagnosis was correct; and that it is to be regretted that it was not found practicable by the associated professional advisers of the Prince to arrive at a unanimous verdict as to the nature of the disease before it had advanced to such a stage as to render extirpation by thyrotomy a course not to be recommended.

In our next issue we propose to deal with the post-mortem evidence, and to discuss its bearing upon certain clinical features of the late Emperor's malady.

Intracranial Tumours. By BYROM BRAMWELL, M.D., F.R.C.P.E., F.R.S.E. Edinburgh: Young J. Pentland. 1888.

DR. BYROM BRAMWELL is well and widely known as a physician who brings the power of careful observation, acute and impartial investigation, and lucid explanation to bear upon many departments of medical science. In this, his latest contribution, he has taken up the subject of Intracranial Tumours, a subject which possesses a peculiar fascination on account of the remarkable way in which it has been elucidated by the combined progress of several branches of medical science. Ophthalmoscopy, physiology, and clinical observation have rendered the diagnosis of these affections exact beyond that of any other kind of brain disease, and among the subsidiary problems of the subject are some of the most interesting in the whole range of neurology. Moreover, at last surgery has come to take away some of the reproach that the progress of diagnosis is fruitless of practical benefit to the sufferer.

In the volume before us Dr. Byrom Bramwell has not attempted to compete with those writers who have attempted an exhaustive analysis of the symptoms of recorded cases. He has contented himself with the more modest task of collecting the opinions of the chief writers on the subject, and on many topics adding the results of his own observation and research. The reader who expects to find in the book any considerable general addition to our knowledge will be disappointed; but, on the other hand, a perusal of the work cannot fail to give clearer views of many of the important problems connected with these diseases. Many of these problems are discussed at considerable length, and the volume is enriched with the careful records of many instructive cases. It is also profusely illustrated by figures produced by the now fashionable photographic processes, and these, although not always very sightly, answer their purpose effectively enough.

A brief account of our ignorance of the subject of causation is followed by a description of the individual symptoms and the probable mechanism by which they are produced. Among these, the changes in the eye are considered at length, and the mechanism by which optic neuritis is produced is discussed very fully. The author believes that no theory fully explains it, but that pressure, and the propagation of irritants by the fluid that distends the sheath of the optic nerve, probably constitute the most frequent cause. The motor and sensory derangements are then passed in review, as well as the mental alterations, aphasia, apoplectic attacks, and visceral disturbance. Diagnosis is dealt with in three chapters: first, the differential diagnosis; secondly, the indications that enable the seat of the tumour to be ascertained; and, thirdly, the pathological diagnosis, which is considered in connexion with the pathological anatomy. Prognosis, duration, course, termination, and treatment, are rather briefly described in one chapter of ten pages; while

a concluding chapter by Mr. A. W. Hare deals with the question of surgical treatment.

The work merits commendation in all parts, but some chapters are more rich than others in the results of personal observation. The numerous illustrations of hemianopsia and of the microscopical structure of the various growths deserve special mention, and so also does the brief, but practical, *résumé* of the chief points in the differential diagnosis of these tumours from other diseases with which they may be confounded. Dr. Bramwell's earlier tendency to excessive tabulation has been chastened in his later writings into a moderation which very much increases the practical utility of his diagnostic analyses. Here and there in the work before us a carping critic may perhaps be inclined to complain that generalisations are made on too scanty a basis, but, on the other hand, they are never unduly pushed or put forward otherwise than with modesty. The book does not attempt too much, and what it does is thoroughly and well done.

BRITISH NURSES' ASSOCIATION.

A MEETING of the General Council of the British Nurses Association was held in the rooms of the Medical Society of London on the 12th inst., Mr. W. S. Savory, President of the Royal College of Surgeons, in the chair. There was a large attendance, and the agenda was as follows: To receive reports from the executive committee; to consider various schemes for the benefit of members; and to consider the draft outline of the petition for the Charter

Miss Wood, secretary, having read the notice convening the meeting and letters of regret at being unable to attend from several members of the Council, the Minutes of the previous meeting, held on June 28th, were read and confirmed.

Dr. Bedford Fenwick then read the report of the Executive Committee, which was to the following effect:—Since the last meeting of the Council, 489 new members (consisting of 14 medical men, 26 matrons, and 449 nurses) had joined the Association, making a total of 1146 members. Petitions had been received from New Zealand, New South Wales, and other colonies asking that branches of the Association should be established in those countries. The motion of Sir Dyce Duckworth, relative to the composition of the Executive Committee, which was passed at the last meeting of the Council, should, in the opinion of the committee, be annulled. The seal of the Association was being engraved, and the words "Steady and True" had been chosen as the motto. Miss Wood had been appointed to visit provincial towns to explain the objects of the Association. It was considered advisable that in the petition for the Charter it should be provided that the members of the Registration Board should be appointed by the Association, and that Crown nominees should be dispensed with. Powers were also asked for the registration not only of trained nurses, but also of midwives and monthly nurses. A full draft of the Charter would be brought forward at the next meeting of Council.

At this stage a desultory conversation as to the claim to registration, training, &c., took place, and the appointment of members to the Registration Board by authorities other than the Association, as tending to inspire public confidence, was warmly advocated. It was also stated that opposition to the objects and progress of the Association was gradually being overcome.

Mr. Brudenell Carter supported the recommendation that the Association should appoint all the members of the Registration Board. He had always advocated the keeping of everything in their own hands.

Dr. Fenwick then resumed the reading of the report. The Executive Committee advised that a conversazione should be held each year, and that during the winter months meetings of the members should be held for the reading and discussion of papers on subjects connected with nursing; that the Association should bestow a gold medal on nurses who had rendered conspicuous or unusual service to their profession; that the Association should establish a benevolent fund for illness or affording temporary help to needy members; that as soon as possible a convalescent home and holiday house should be organised; that the Association may, if invited, hold its annual meetings in provincial towns, each meeting to be held in the first week in August. Dr. Fenwick then read a programme of practical nursing, suggested by the Association as essential to be known by every trained nurse. It was as follows:—

"Candidates for registration must possess some knowledge of elementary anatomy and physiology. They must understand the best methods of keeping a ward or sick room clean and healthy, by sweeping, dusting, polishing, ventilating, warming, &c. They must understand the various methods of making a bed for medical and surgical cases, and of changing sheets &c. They must know the best and least exhausting way of keeping a patient in a cleanly condition, and know how to prevent or dress a bedsore. They must be skilful in undressing sick and injured persons, and must be able to bandage, pad splints &c., and prepare and apply all dressings. They must know how to prepare or apply poultices, fomentations, hot bags and bottles, blisters, lotions, leeches, ice bags, evaporating lotions, and wet packs, and prepare for cupping. Also how to give baths, hot, cold, hot air, and vapour, as regulated by the thermometer. They must understand the use of the clinical thermometer, and how to keep a chart and record the rate of the pulse and respirations correctly. They must know the various ways of administering food, medicine, and stimulants, and know by heart the tables of weights and measures. They must be able to use quickly and correctly the various syringes and female catheter, and must know the quantities generally given in enemata and injections of all kinds. They must have practical knowledge of the various systems of disinfecting patients' clothes and rooms, and of keeping utensils and instruments thoroughly clean. They should possess some knowledge of cooking for the sick, and how to prepare beef-tea and jelly, chicken and mutton broth, arrowroot, cocoa, whey, egg-flip and milk puddings, and also how to peptonise food."

The balance sheet for the past quarter was most satisfactory. In June there was a balance of £167, and up to the 12th inst. a further sum of £189 had been received. The total expenditure amounted to £59, and a balance of £297 was left in the hands of the treasurer.

The report of the committee was carried unanimously, subject to an understanding that friends of members should be admitted at a nominal charge to the proposed conversazione.

Dr. Fenwick proposed that members of the Association, not members of the Executive Council, should be allowed to attend its meetings as visitors, not joining in the discussion or voting, and that reporters from the lay press be allowed to attend. Miss Stewart having seconded the motion, it was carried *nem. con.*

Mr. Sibley moved a vote of thanks to Mr. Savory for his cordial assistance to the Association and for presiding on this occasion. Miss Stewart seconded the motion, and it having been carried, Mr. Savory returned thanks, and the proceedings terminated.

JUBILEE MEMORIAL HOSPITALS.—The foundation stone of the Victoria Hospital, Swindon, which was laid on Jubilee Day, 1887, was formally opened on the 29th ult. The site (an acre of land) was sold by the lord of the manor at a nominal price. The cost of the building has been £1626, the whole of which (with the exception of £50) has been raised. All the beds in the wards—three for males and three for females—have been presented by various donors. A new hospital, as a Jubilee Memorial, erected at St. Albans, Herts, by public subscription, was opened by the Earl of Verulam on the 10th inst. It has cost upwards of £4000, and will provide accommodation for twelve patients, but additions, when necessary, can be made at a comparatively small outlay. Six beds are appropriated to men, four to women, and two for accidents.

SUNDAY LECTURE SOCIETY.—The Committee of this Society have determined to give during the winter a course of twenty-one lectures, in St. George's Hall, London, on Sunday afternoons, at 4 P.M., as in former years, beginning on Oct. 21st.

THE LANCET.

LONDON: SATURDAY, OCTOBER 20, 1888.

THE out-patient department of the various metropolitan and provincial hospitals affords an almost unlimited field for observation and for clinical instruction—a field that is already diligently cultivated, but of which the resources and possibilities are wellnigh inexhaustible. We propose to consider what are the advantages offered to the student by this department, what are its defects and dangers to the medical tyro, wherein it offers opportunities peculiar to itself, and wherein it is inferior to bedside teaching.

Speaking broadly, out-patient practice is wide in its range rather than conducive to depth and thoroughness. The pressure of patients is so immense that the ablest and most painstaking practitioner is compelled, often reluctantly, to hurry through his work and to omit many of the methods of precise observation which he employs regularly in his ward work. The student, on his part, is apt to be bewildered by the endless succession of types and stages of disease, and unless his observation be concentrated and judiciously directed he is liable to carry away general impressions rather than precise knowledge. This danger is more evident and more pressing in the medical than in the surgical out-patient room. In medicine diagnosis is in a large proportion of cases complex and difficult, requiring a very thorough physical examination and a careful induction from the history of the case and the symptomatology, which may present many points of conflict or contrast; in surgery, on the other hand, the physical signs are often palpable and the diagnosis evident. The young beginner finds a difficulty in following the physician who in a few rapid words indicates the diagnostic features of a case of pulmonary or cardiac disease, but will much more readily follow the surgeon in noting the characters of a fracture, an ulcer, or a diseased joint. Hence we think it is imperative, if the professional training of the unfledged student is to continue to begin in the out-patient department, that, at least in medical practice, his attention should be concentrated on a few typical and selected cases, rather than allowed to stray at will over the wide field of observation there open to him. Some physicians adopt with great success the method of selecting a few well-marked and instructive types out of the crowd of patients, and either detain them until the routine work of the department is over, or send them apart into an ante-room, where the diagnosis can be fully elucidated to the clinical class. Others contrive so to arrange the attendance of patients that a few cases suitable for teaching purposes shall have precedence of the general work, and half an hour or more is devoted to instruction before the general flood of cases begins to render adequate explanation and diagnosis im practicable. We commend either of these methods as tending to obviate the evil which we deprecate—viz., of encouraging or permitting the young student to spread fruitlessly over a large area that energy and attention which, more prudently husbanded, might be productive of good results. The evil strikes deeper than even the dissipation of energy and waste of time. The student who has been allowed to roam at will through out-patient departments without check or restraint is apt to think that he knows many things of which he possesses only an inconsiderable smattering, and may thus unfit himself for the laborious and exhaustive analysis of disease which awaits him in the wards. These evils, however, may be, and are, successfully obviated in many cases by those methods to which we have already made allusion.

What out-patient practice is apt to lose in depth it may gain in breadth. Exhaustive analysis is difficult, but amplitude and comprehensiveness of view is practicable, and, indeed, easy. Few cases comparatively can be probed to the bottom and thoroughly exhausted, but of the great majority it is possible to form a shrewd general impression, incomplete, no doubt, as a rule, but not necessarily inaccurate to any serious extent. Hence the senior student should not ignore the out-patient room as unworthy of his most serious attention. There he can test his readiness in the application of the knowledge gained at the bedside, and do much work which is an excellent preparation for the consulting room. The out-patient department and the consulting room have more in common than may be at once apparent. In both, the power of seizing the salient outlines of a case in a limited time is indispensable for success. In both, the practitioner has to learn to exclude everything that is non-essential, and to concentrate his attention and treatment upon the chief morbid condition present. In both there must be a wise neglect of the verbiage of the egotistical patient, of the unconscious exaggerations of the neurotic or hysterical, and occasionally of the deliberate deceit of the malingerer.

The out-patient room may also afford the senior student wholesome and fruitful instruction in rough-and-ready therapeutics. He cannot, indeed, there learn thoroughly scientific and exhaustive treatment, but he may acquire the power of handling effectively the more potent remedies for the relief of the commoner ailments. The cases under notice being usually of a less serious character than those which gain admittance to the wards, the treatment is often, legitimately enough, of a symptomatic character. The relief of dyspepsia, constipation, neuralgia, headache, myalgia, and a host of similar minor ailments, largely engages the attention of the physician in the out-patient room, and the student cannot too soon be convinced that such knowledge will be of the utmost advantage to him in his after-life. In spite of the medical scepticism of the day, the public, with a true enough instinct, still look to us mainly for treatment, and will not rest satisfied with mere diagnosis or prognosis, however exhaustive and accurate. The power of handling with effect the remedies at our disposal is one which we cannot afford to depreciate or despise. It is a power possessed in very different degrees even by men of distinguished talent, and we think the out-patient room affords a valuable field for its cultivation.

BEFORE any new legislative measure can be deemed generally satisfactory, two requirements must be proved so far as they are capable of proof. It must be shown that existing arrangements are undesirable and calculated to

act to the public detriment, and the measures suggested for their amelioration must be found to be an improvement which is free from the charge of introducing any fresh awkward complications. Consideration of the present strained relations in Ireland between "chemists and druggists" and "pharmaceutical chemists" sufficiently demonstrates the need for legislative interference, and, although the matter received much attention some thirteen years back, it is already found necessary to introduce an Amendment Bill to improve matters. This Bill was brought forward in the Lords last session, but the amount of opposition it met in many quarters was shown by the appointment of a Select Committee after the second reading. The Committee received evidence and duly reported thereupon, but, in spite of this, when the Bill was brought down from the Lords to the Commons, it was allowed to stand over for second reading in November. The report of this Select Committee has now been published, together with the Minutes of the evidence received, and it serves to explain the present position of the chemists and druggists, while its voluminous character and its intricacy perhaps account for the reluctance of the House of Commons to deal hastily with the question. It is freely admitted that the Pharmacy Act (Ireland) passed in 1875 has been found difficult to enforce; that it has been repeatedly evaded and disregarded with impunity; that those charged with its administration have found themselves powerless to act from lack of financial resources. The difficulty and confusion appear to result mainly from the ambiguity of the trade names employed in Ireland. From the evidence given before the Committee, it was speedily apparent that, although the Act of 1875 was intended to reproduce in Ireland the conditions of Great Britain, the term "chemist and druggist" had no true equivalent here. Before the passing of this Act "chemists and druggists" in Ireland were unregistered, they had passed no examination in proof of their qualification to retail drugs and poisons, and they were not entitled to make up medical prescriptions. In numerous districts the demand for drugs would not support a pharmaceutical chemist, who alone had the right to dispense. Those carrying on the business of chemists and druggists in many cases were also employed in retailing drapery, ironmongery, grocery, or even whisky, and merely set apart a little corner of their shop for the sale of drugs. The possible danger of poisoning from confusion of bottles sent to these stores for drugs and for drinks was sufficiently obvious, although this appeared to be regarded as rather a secondary consideration. The chief question inquired into by the Committee was the propriety of retaining the linked title of "chemist and druggist." This designation was rightly held to be confusing, although those objecting to the Pharmacy Act Amendment Bill fought strenuously for its retention. The information elicited by the Committee clearly showed that abuses were likely to arise from druggists who have no right to dispense retaining the title of chemists. When requested to state their objections to the Bill, this proposed suppression of one of the terms which had been linked by usage was placed in the front rank, as it was imagined that it would lower them in the public estimation. The "chemists and druggists" also objected to the regulations which surrounded the examinations of the Pharmaceutical Council, the serving four years with a pharmaceutical chemist or with a "registered chemist and druggist of Great Britain" being very irksome; they objected to the payment of fees unless the Pharmaceutical Society allowed them a representation on the Council, and one witness urged the frivolous objection of the financial loss which he would suffer in having to destroy all his bills and labels which bore the words "chemist and druggist." These terms threatened so much confusion that in the end the secretary of the Pharmaceutical Society of Great Britain was asked to indicate the differences existing here between "pharmaceutical chemists" and "chemists and druggists." He explained that so far as regards their business and their relations to the public they are on exactly the same footing. In the ordinary routine of business the pharmaceutical chemist possesses no advantage over the ordinary chemist and druggist. His superior knowledge, which has been shown by a higher examination, is but rarely appealed to in questions of analysis, and his designation is, in a sense, an honorary degree. As the matter at present stands, "the chemists and druggists" in Ireland are clearly trading under a misleading designation, which affords no protection for the public. That the Committee of the House of Lords realised this danger is evidenced by the new clause they have introduced into the Bill. Not only is the title of "chemist and druggist" to be abolished, but "every person practising as a registered druggist under this Act shall display conspicuously outside his place of business a notice in legible characters as follows, 'Not licensed to dispense or compound medical prescriptions,' and in default" to be subject to sundry penalties. It is clearly an anachronism to leave an uneducated public to struggle with the niceties of the distinctions between druggists and pharmaceutical chemists, or to trust those to observe the law who admit that they have freely evaded it. When the President of the Pharmaceutical Society of Ireland plainly states that it has been found impossible to administer the Act of 1875 and to prevent the sale of poisons in public-houses, it is high time more precise and stringent legislation were effected. Careful consideration of the evidence taken by the Select Committee of the Lords should convince everyone of the need of this measure, which appears so essential to the public safety.

IN the few abstracts of Introductory Lectures delivered in the Provinces and reported by us last week, the same great morals are pointed and the same great problems are broached as in the Metropolitan Addresses already noticed. At Owens College Dr. JAMES ROSS discoursed, as he was highly fitted for doing, on the great problems of Knowing and Being; of the living and the non-living, and the gulf between them. These are rather severe questions to propound to the young mind of students on the threshold of a profession so pressed with urgent duties, for the discharge of which, happily, knowledge of a more concrete and elementary kind is enough. "The doctrine of the indestructibility and ingenerability of energy" and the like doctrine of matter are, no doubt, conceptions of the highest interest in philosophy, and of the most far-reaching consequences; but whether they are just the thing to drop into the mind

of a youth as he is confronted with four years of hard practical work, may possibly be doubted. They give the sense of diffusion and doubt, at a moment of life when concentration and faith are the great desideratum. By way of correcting this tendency of his able and lofty address, Dr. ROSS ended with more practical reflections, enjoining attention to duty as the great solvent of doubt, quoting CARLYLE to this effect: "Do the duty which lies nearest thee, which thou knowest to be a duty; thy second duty will already have been clearer." Mr. TEALE, at Leeds, touched inevitably on the bearing of our present system of education and examinations on the development of character and efficiency. Mr. TEALE is one of those earnest educationists who think that examinations are overdone, and that the very improvements in education may become sources of deterioration. Cramming and routine of mechanical work are large elements in the educational processes of the day, necessitated by the very nature of the examinations which admit to the profession, and they are apt to crush out individuality. "Self-education" is apt to be neglected, but it constitutes a large part of true education. We commend Mr. TEALE'S address to students, and especially his advice to seek after every opportunity of personally seeing, observing, and doing. The more we can learn everything for ourselves, and verify it for ourselves, and incorporate it with ourselves, the more lasting and fruitful will the lessons of our life be, whether at the student period, or the later one to which that is but the introduction. His high praise of hospital work will be endorsed by every successful physician and surgeon; so too will be his estimate of prizes and the working for them. The man who will score the real prizes of life will be he who works not for the sake of the school prize, but for the sake of the work which gets the prize. Dr. JOHN WILLIAM MOORE in the Meath Hospital vindicated, in spite of humbling failures, the triumphs of both medicine and surgery. He characterised medicine as the noblest of the professions, though those who follow it might be led to forget wherein its nobleness consisted from two very opposite reasons—either their enthusiasm on the one hand, or their straitened circumstances on the other. The nobility of medicine consisted in its Christ-like nature, and it must be admitted that medicine in its best examples most resembles the Great Physician, both in its actual achievements, and in the spirit in which they are worked. There are those who vulgarise even medicine, but they are incongruous and unworthy. We say they act unprofessionally, which is only another way of saying that in the very "manner of their spirit" they are unfitted for the calling into which they have drifted.

AMONG the rarer phenomena observed in patients thoroughly saturated with the poison of malaria is a special and interesting form of inflammation of the testicle. The disease is quite a rare one, even in countries where malaria is rife, and no mention is made of it in our English text-books and systems of surgery, or in CURLING'S well-known work on Diseases of the Testis. In a recent number of the *Revue de Chirurgie* Dr. CHARVOT has described some cases which have come under his notice among the French soldiers in Tunis, and from them and from other published cases he draws a fairly complete picture of the disease.

The first feature of malarial orchitis, and one that seems to be well marked, is its occurrence only in those who have suffered severely from ague. The onset of the inflammation may be noticed during an attack of fever, often in the night, and quite apart from any injury, urethral discharge, or other exciting cause of an epididymitis spreading from the urethra. The inflammation is of an acute and severe type. In a few hours the part becomes greatly swollen, and the disease reaches its height in two or three days, and then somewhat slowly and gradually subsides and passes away. In some recorded cases the local inflammatory phenomena have undergone daily exacerbations and remissions in unison with the body temperature, but Dr. CHARVOT has not observed this in his cases. Both the body of the testicle and the epididymis are involved in the inflammation, and there is effusion into the tunica vaginalis. The skin of the scrotum is not implicated, and is only rarely adherent to the subjacent tissues, although there is inflammatory œdema of the cellular tissue of the scrotum. The pain is usually very severe, and radiates from the testicle up to the groin and round the loins. Under treatment the pain and inflammatory œdema quickly subside, but the absorption of the inflammatory exudation in the testicle takes place much more slowly, and is followed by more or less atrophy of the secreting substance of the gland. The disease is accompanied by malaise, headache, neuralgia, pinched face, and anæmia, all marks of severe malarial poisoning.

One very important point is that it is usually followed by more or less complete atrophy of the testicle. This is exactly similar to the atrophy attending all acute inflammations of the body of the testicle, and depends upon the destructive influence of the inflammatory exudation upon the delicate seminal tubules packed inside the unyielding tunica albuginea. The same tendency to atrophy is seen in traumatic orchitis, and in that which is a part of parotitis; and, indeed, an acute and severe inflammation of the body of the testicle unaccompanied by subsequent atrophy is unknown.

The treatment of this form of orchitis, happily, is not very difficult. A full dose of quinine should be given a few hours before the rise of temperature, and this should be repeated daily until the patient is continuously apyrexial. The beneficent effect of quinine is quickly seen in the fall of the temperature, the abatement of the pain, the lessening of the headache and malaise, and often in the quick subsidence of the scrotal œdema. If its influence is maintained, the swelling of the testicle shrinks, and the gland becomes smaller and softer, with loss of testicular sensibility. No special local treatment is required. The fever which is always associated with malarial orchitis is not symptomatic: it most often precedes, but is by no means in proportion to, the inflammation of the gland, and it yields to treatment by quinine much more quickly than does the orchitis itself. The liability to wasting of the gland renders it important to recognise the nature of this disease as soon as the patient is attacked by it. As a rule, the diagnosis presents no grave difficulties. From gonorrhœal orchitis it is distinguished by the affection of the body of the gland as

well as of its epididymis, by the character of the fever, by the history of the patient, and by the very marked influence of quinine given in full doses. It is more closely like the orchitis of mumps; but where there has been no parotid inflammation to assist in the diagnosis, the intermittent or remittent character of the fever, and the failure of the swelling to undergo rapid absorption after the fall of temperature, are sufficient to distinguish it. The effects of a single large dose of quinine are also so well marked in malarial orchitis that in any doubtful case the therapeutic test is of great value. Dr. CHARVOT has found more difficulty in distinguishing this form of acute orchitis from an acute tubercular affection; but in the latter the epididymis is markedly nodular, and there is a notable tendency towards suppuration. Although the disease is very little known in England, it is yet one worthy of careful study. Patients saturated with malaria often return home to this country with various manifestations of the disease; and our military surgeons, as well as many private practitioners, may well find themselves called upon to treat this affection when residing or travelling in foreign climes.

THE remarks which appeared in THE LANCET of the 15th ult. with regard to the suggestion made by Mr. ALBERT BENTHALL of Southsea, has called forth letters from that gentleman and two anonymous correspondents, to which it is necessary to reply. Mr. BENTHALL'S letter commenced with the remark that no one who is not practising in a garrison town could have any conception of the disastrous results of the repeal of the Contagious Diseases Acts. Having made this statement, one would have expected from him the obvious and logical conclusion that the remedy for such a state of things was the restitution of these Acts. Unfortunately he made a suggestion for the examination of men, which we felt obliged to reject as wholly impracticable, for reasons which were given at length. It is much to be regretted that Mr. BENTHALL, "A Medical Muser," and "M.D. Durh.," with many other medical brethren, cannot read a defence of the Acts without retorting with an amount of feeling which unfits them for a dispassionate discussion of the subject. Those who defend these Acts are looked upon as apologists for vice committed by vicious men upon helpless women. When discussing recently the repeal of these Acts in the colonies, we were careful to disclaim the idea that fornication was a necessary evil, and we quoted Sir JAMES PAGET'S words: "Chastity does no harm to mind or body; discipline is excellent; marriage can be safely waited for." Sir WILLIAM JENNER has also spoken strongly on the importance of young men curbing their passions. On this point medicine and divinity are united. GEORGE HERBERT'S words, "Continence hath his joy" is no mere poetical sentiment, but a sober truth, which none can appreciate better than medical practitioners. It is they who know the terrible consequences of incontinence on the one hand, and, on the other (though the cases are rare), the solid advantages mentally and bodily enjoyed by men who have kept themselves pure. But we have to take the world, not as it ought to be, but as we find it; and, to return to the present subject, we would ask, Why is it that garrison towns are such centres of vice, and, consequently such hotbeds of disease? The answer is that wherever soldiers are stationed in any considerable number, thither will flock a number of prostitutes of the lowest kind. So well established is this fact that the proposal to erect barracks in any locality previously free from them encounters strong opposition from the residents, who know well from the experience of other localities similarly situated what will be the inevitable result. Mr. BENTHALL has made it perfectly clear that the Acts did remove evils in Portsmouth and Southsea, which their repeal has intensified; proving, what we have always contended, that the large proportion of venereal diseases is caused by prostitutes. The remark of "M.D. Durh.," that, from the physical condition of the two sexes, it is much more likely for a woman to contract disease from a man than *vice versâ*, proves conclusively that his knowledge of these diseases must be very limited. The experience of lock hospital and visiting surgeons is that these women may infect an almost unlimited number of men before they are themselves aware that they have anything the matter with them! Ulcers on the os uteri cause little or no inconvenience, and give hardly any indications of their presence until revealed by careful examination with the speculum. Gonorrhœa, which with its various complications of chordee, orchitis, epididymitis, bubo, perineal abscess, &c., causes such frightful suffering to men, is painless in women, and is much more liable to be contracted by men than by women. So far from acting harshly towards these miserable women, the Acts were their best friends—much better, indeed, than the neglect and filth to which the repealers of these Acts have abandoned them. The Whitechapel horrors have again compelled attention to this worst form of the "social evil," and the fact that the Contagious Diseases Acts grappled successfully with an evil with which philanthropists, both before their passing and since their repeal, have wholly failed to deal, remains with all the proverbial stubbornness of facts in general. "A Medical Muser" is keen to see the mistakes which everybody else has made in dealing with the social evil; but his suggestion to make the communication of syphilis a penal offence is as impracticable as Mr. BENTHALL'S for the examination of men. History repeats itself; and before long it will be found and admitted by our correspondents that those who framed these Acts were perfectly well acquainted with the subject in all its bearings, and that the only real objection to them was the limited sphere of their operation.

A MATTER which, though essentially medical in its nature, has become so public as to have had all its scientific details laid bare to a gaping world, no longer lends itself readily to the dispassionate criticism of a purely professional journal. It is true that, under ordinary circumstances, it would be comparatively easy to eliminate the extraneous elements of the case, and deal solely with those points in it which could be adequately appreciated by instructed readers. But in respect of the fatal illness of the late Emperor FREDERICK of Germany even this course has been rendered extremely difficult by the complications, political, social, and ethical, in which the circumstances attending that deplorable event have become involved, to say nothing of the contradictory evidence forthcoming in relation to its

more prominent facts. It cannot but be deeply regretted that it should have been deemed necessary or wise to make public, from the time that active treatment was commenced until the melancholy close, all the minutiæ of the symptoms arising in the course of the malady of the august sufferer, and the means adopted to mitigate them. But it is still more to be regretted that political rivalries and professional jealousies should have been allowed to intrude into the very chamber of the death-stricken Emperor, so as to imperil, if not to destroy, the peace of mind which is so essential an auxiliary to the beneficent action of well-devised remedies, either medical or surgical. It would have been to a certain extent satisfactory if these unpleasant, not to say discreditable, features in connexion with the history of this case had been suffered to pass into oblivion with the decease of the illustrious patient whose closing days they had embittered. But this, unhappily, was not to be. The unseemly strife must be perpetuated over the imperial tomb, and angry criminations and recriminations flung across it, to the infinite pain, we may well suppose, of the survivors in the bereaved family, the indignation of the profession to which the chief combatants belong, and the edification, or perhaps amusement, of the world, to whom, indeed, the appeal is now made by the volumes just issued from the press. But another circumstance much to be regretted in this miserable business is the publication—in a quarter, too, where it might be expected more prudent counsels would have prevailed—of a statement alleged to have been written by the dying Emperor, in which he expressed an unfavourable opinion of the merits of the treatment carried out by one of his medical attendants. Of course, the opinion of a patient, however noble and dignified, yet unfitted by education and training to decide on medical questions, is valueless as evidence of the propriety or otherwise of the means adopted for his relief. The publication of the "facsimiles of some of the late Emperor's scripts" can therefore only have the effect of intensifying yet more the feeling of personal rancour imported into a controversy already sufficiently pronounced, and of rendering more dense the cloud of prejudice by which its true issues, which should be viewed in the calm, clear light of science alone, are kept out of sight.

The whole matter being thus thrown into the arena of public gossip and debate, we, as medical journalists, can have but little to do with it in its present phase, save from a purely scientific point of view. As we have intimated above, some of the main facts in connexion with it are involved in doubt, statements in regard to them, confidently affirmed on the one side, being vehemently denied on the other. We must leave the disputants to settle these broad discrepancies. Our duty will be discharged by offering an exposition of the significance of the more important facts as brought out in the clinical reports of the illness and in the protocol of the post-mortem examination. The first part of this exposition will be found in an article in another column of our present issue, in which the two books containing the charges and countercharges, the affirmations and denials, in this gruesome controversy, are submitted to review.

Annotations.

"Ne quid nimis."

REFORM AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE report of the minutes of the quarterly meeting of the Council, held on October 10th, appears in our last issue. From it we glean that the Committee on the Extension of the College Premises have recommended a yet further expenditure of £3640 for a new house (conservator's) and a new party-wall. In our opinion this expenditure on bricks and mortar is unsatisfactory and extravagant, and should not have been incurred without the consent of the Fellows of the College. The President of the Council of the College was re-elected on the Committee of Management. Mr. Heath's motion, "That an honorarium of £300 be presented annually to the President on completing his year of office," was lost. Eleven councillors voted against the proposal, and four for it. By accident, in our last issue, the words *for* and *against* were transposed. One word about the annual meeting to be held on Nov. 1st, at 3 P.M. The Supplementary Charter granted to the Royal College of Surgeons by the Lord President can stand only as a provisional measure, the Charter having had expunged from it all controversial matter. These controversial points will and must be raised again and again. We trust that there will be a large attendance of Fellows and Members to protest that their present position is intolerable, and unworthy of the time and place. They will again approach the authorities at the College respectfully soliciting reform; they will endeavour to obtain the same legitimately through their own representatives before taking independent action to force into further prominence the present constitution of the Royal College of Surgeons of England, and the administration of corrective remedies to a most faulty system.

SCARLET FEVER IN LONDON.

RECENT returns issued by the Metropolitan Asylum Hospitals and by the London Fever Hospitals have shown that during the past eight weeks the number of cases of scarlet fever isolated for treatment in these institutions has steadily increased from 774 to 983. As this fact taken alone might give the false impression that London is suffering from a severe epidemic of this disease, it may be useful to call attention to a few statistics bearing upon the recent prevalence of this disease in London. It appears from a summary table published in the Registrar-General's last Weekly Return that during the quarter ending with September last 238 deaths from scarlet fever occurred among the residents of Registration London, the average number in the corresponding period of the last ten years, corrected for increase of population, being 490. The mortality from scarlet fever last quarter was therefore less than half the corrected average, and was equal to an annual rate of 0·22 per 1000, corresponding with the mean rate during the same period in the twenty-seven provincial towns. The Registrar-General's table shows that the mortality from scarlet fever varied very considerably in the five principal groups of registration districts. The annual rate from scarlet fever last quarter did not exceed 0·10 in the west group of districts, whereas it was 0·23 in the central and 0·50 in the east districts. Thus scarlet fever was just five times as fatal in East as it was in West London; and it may be said that the only one of the Metropolitan sanitary areas in which the disease showed epidemic prevalence during last quarter was Bethnal-green, where it caused an annual rate of 1·10, or five times the mean rate in the whole

of London. To revert to the hospital returns, it may be noted that the Metropolitan Asylum Hospitals contained 945 scarlet fever patients on Saturday last, against 2012 in the corresponding week of last year. It should also be borne in mind that in London, at any rate, the proportion of isolated cases is constantly increasing, so that the above numbers do not fully show the extent of the decline in the present prevalence of scarlet fever in London compared with its prevalence at this time last year, when, moreover, it scarcely exceeded the average. The proportion of deaths from scarlet fever in London occurring in hospital rose steadily from 7 per cent. in 1878 to 36·6 per cent. in 1887; and it is noteworthy that during last quarter 45 per cent. of the fatal cases of this disease were recorded in hospital. It should be stated, moreover, that the proportion of isolated cases in Bethnal-green was considerably lower than the mean proportion in the whole of London. It is, at any rate, satisfactory to know that, notwithstanding the large number of cases of scarlet fever now under treatment in the Metropolitan Asylum Hospitals, the prevalence of the disease, judged by the death-rate, is scarcely more than half the average prevalence at this time of the year, when the mortality curve for the year usually reaches its maximum.

THE PREVENTION OF YELLOW FEVER.

THE continuance of the serious epidemic of yellow fever at Jacksonville has necessarily led to a consideration of the question whether the sanitary measures adopted in the United States for the prevention of that disease need to be modified or extended; and it seems to be generally admitted that the present system of sanitary defence against it is imperfect, and that it needs amendment, especially in the direction of definitely placing the responsibility attaching to the importation of foreign diseases in the hands of a central sanitary bureau rather than in those of individual States, the boundaries of which are ignored by the prevailing infection. More than once endeavours have been made to decide on some definite line of action as to yellow fever in the United States—conferences, inquiries, and conventions having been organised for that purpose. The more advanced sanitarians have long since come to the conclusion that the cause of yellow fever is specific, particulate, and endowed with the vital properties of growth and reproduction. There is not complete unanimity as to its conveyance from person to person, but it is very generally understood to be spread by means of fomites, and in this, and perhaps other senses, it is generally held that, whilst it is not contagious in the common sense of that term, it is portable and communicable. It is essentially to foul ships and filthy cities that yellow fever attaches itself, and though there is doubt as to the respective influence of vessel, freight, soil, sewerage, and sanitary circumstances generally, there is but little difference of opinion as to the value of cleanliness in all its varied aspects for preventing epidemics of the disease in countries like the United States, where the disease has as yet never acquired a permanent domicile. Isolation, disinfection, and depopulation, where these can be efficiently carried out, are perhaps the most potent measures for preventing the spread of the disease when once it appears. Thus far, isolation has been attempted under some form of quarantine. The system adopted has, as time has progressed, rather come to resemble the system of medical inspection advocated by the Vienna Conference than the Eastern quarantine; but it has failed over and over again. Some hold the view that, having regard to the imperative commercial necessities of the United States, such quarantine must always be doomed to failure, and that it is only whilst the panic of an epidemic or the immediate recollection of it lasts that the public will tolerate any sufficiently stringent regulations in this direction. Others contend that if a certain number of properly constituted quarantine stations were organised along the Atlantic and Gulf coasts of the States, instead of expecting each port to take care of itself in this respect, much greater efficiency and security would be the result. Hitherto it has been somewhat difficult to decide how far measures of restriction upon communication have succeeded, for when cessation has followed, apparently as the result of their adoption, it has more than once been a question whether the improvement has not been due to the advent of cold autumnal weather. But, on the other hand, the mere fact that yellow fever in the States ceases to extend with November cold, is regarded by some as strongly justifying the control which would be exercised by a system of medical inspection and detention, for the reason that though it might not be complete enough always to exclude infection, it would tend to delay its entrance, and the gain of a few weeks, or even less, would at times make all the difference between an epidemic and no extension of the disease. As to disinfection, few things are more difficult than the efficient and complete disinfection of a typical yellow-fever vessel, with rotten wood, warm, damp, confined air, and holds full of trunks, bales, &c.; but much by way of prevention can still be done in this direction. Depopulation is admitted to be an important remedy when the disease has extended on shore, and especially where the soil is favourable, from filth and otherwise, for the retention of the poison. But large towns and cities cannot be depopulated even at the public cost; and for this and other reasons set out, the real remedy against the spread of yellow fever must be mainly sought in the application of such sanitary measures to ships, docks, ports, and cities as will get rid of the soil in which the poison lives and propagates itself, afloat or on shore.

"ARE FRIENDLY SOCIETIES AND OTHER SICK CLUBS A DELUSION?"

THIS is the title of paper by Dr. Belcher, of Gloucester. The paper is unnecessarily long, consisting of sixteen closely printed columns. But it gives full expression to the feelings of a great many medical men on the abuses of club practice, or rather of that modern form of club practice known as the "Friendly Societies' Medical Association." Shortly put, the argument of Dr. Belcher takes this form: that people of means and property take shabby advantage of the sick club, which is essentially meant as a benevolent accommodation to those earning moderate weekly wages. He asserts—what, indeed, is notorious—that well-to-do people, tradesmen, owners of property, &c., who can well afford to pay the ordinary charges of a medical attendant, go into a club and claim the doctor's services for a few shillings a year. He argues that doctors see this, and that they would be something more than human if they did not resent it. To the answer that doctors are not compelled to take these appointments, and that after taking them optionally they are precluded from the right of complaint, he replies that they are virtually compelled to take them by the pressure of circumstances and competition. He is very forcible when he expresses his surprise at respectable mechanics countenancing such mean treatment of medical men. They know the value of good workmanship, and, excepting in this club question, are generous in their feelings, and thoroughly averse to bringing the remuneration of good work down to the figure dictated by the neediest members of their class. Dr. Belcher refers to the recent recommendations of the committee in the metropolis for investigating and reporting on the question of medical attendance on the working classes. There is little praise in his reference to the Metropolitan

Provident Dispensaries. But he approves the recommendations of the committee—first, in respect of the terms of attendance; secondly, in the recommendation of a strict wage limit; thirdly, in the charging of a penny for each prescription compounded. His great complaint is of the low terms offered by the Friendly Societies' Medical Association, and of the absence of a wage limit admitting members who own property or have means that would enable them to pay ordinary charges. Without assenting to all Dr. Belcher's statements, we think he has not unduly condemned the tendency painfully exhibited in late years to get medical service for nothing or on the meanest terms. We cannot acquit medical men who accept these terms so readily as Dr. Belcher does. If the medical profession does not protect itself in this matter, there is no external authority that can protect it. It can only protect itself by each individual practitioner remembering that he represents a learned and a liberal profession, and men who fail in this duty and accept large professional responsibilities on terms on which neither good medicines nor adequate attention can be given must not complain if they lose the respect of their professional brethren. The way in which this loss of respect should be expressed is a serious question which we shall not now stay to discuss. But we may another time have something to say about it, and also of the way in which it should *not* be intimated.

ARSENIC IN LEUCOCYTHÆMIA.

THE results of a careful investigation of the effect of arsenic on a case of leucocythæmia appear in the *Therapeutic Gazette*, No. 9, from the pen of Mr. G. A. Barton, late house physician to University College Hospital. In the case in question the blood contained 38 per cent. of red corpuscles, with one white to about every three red. On leaving the hospital, the red blood corpuscles were 46 per cent., and there was but one white to 400 red. Gamgee states that the number of white corpuscles after a meal is double that of fasting, and that this is not a progressive rise, but is at its maximum half an hour after meals. Mr. Barton confirmed this fact in the case of leucocythæmia also. The white corpuscles examined on the warm stage at a temperature of 91° F. showed movements as active as those of the white cells of normal blood. The arsenic was employed in large doses, nearly as much as a grain of arsenious acid a day being administered; pigmentation of the skin appeared, and a crop of carbuncles about the perineum; but to what precise cause the latter were due does not appear.

ART AND INVALIDS.

A CORRESPONDENT writes to direct our attention to an old and real grievance which continues to distress that large class of invalids who cannot walk. A Bath-chair or a tricycle may not, as a rule, enter the rooms of an art gallery or a museum, and a prohibitory custom also prevents their being utilised on railway platforms. The self-denial thus inconveniently imposed on their occupants is evident. We must admit, however, that we cannot as yet see in what way the difficulties of their condition can be effectually met. Take for example the case of museums. The turnstile system of checking the entrance and exit of visitors opposes an impassable barrier to the invalid. The stairs also present a serious obstacle. The space occupied by a wheeled vehicle driven along a corridor among show-cases, which are at the same time a source of interest to walking sight-seers, is another noteworthy consideration. Similar objections, modified by special circumstances, apply in the case of the railway station. We are well aware that these difficulties are not wholly irremediable, though their removal would imply in many cases a certain outlay. The construction of an additional entrance would obviate the need of a turnstile. The walking public, we are sure, would readily share its present locomotive convenience with the crippled minority. We confess that we cannot quite see how the stair impediment, with its risks of serious accident, is to be overcome. This and the other matters natural to the subject may, however, be submitted to the judgment of the responsible officials whose part it is to consider any possible reforms. We feel for invalids in their present position, and are not hopeless that some at least of the inconveniences which now limit their means of recreation may by judicious management be removed.

THE BURG THEATRE AT VIENNA.

AUSTRIA is not generally considered to be a very forward country, and it is perhaps true that in many things it is a little behind the age. We must acknowledge, however, that Vienna has long been in the forefront of medical progress, and in the all-important department of preventive medicine it is taking a prominent place. The application of scientific principles to the construction of theatres is of the greatest importance to the health of those who frequent them either for amusement or in the course of professional duty, and the Viennese have lately given to the world an example of what a theatre should be, whether regard be had to its safety or wholesomeness. The new theatre, of which a detailed description was given lately in the *Daily News*, appears to have been planned more than twenty years ago by Baron Hasenauer. When the magnificent Opera House in the Ringstrasse was built, the first person to be consulted was the director of the Allgemeines Krankenhaus, from whom an opinion was sought as to the possibility of giving an audience fresh air, or at least pure air, to breathe. The ventilation of the new Opera House has been most successful, and hitherto it has been *facile princeps* in this respect among the theatres of the world. The new Burg Theatre, however, is said to surpass it. The air is sucked, by means of a fan from the Volks Garten, into a high subterranean corridor. Here it is both screened of dust particles and moistened by an elaborate apparatus. From the corridor this clean moist air is propelled into a circular room, in which, by an ingenious contrivance, the current is divided, half for the stage and half for the auditorium. Part of the air is warmed by passing through steam-heated cylinders, and in a room above the receiving room the hot and cold currents are mixed, and when the proper temperature is reached it passes through a great number of tubes to its destination. By means of over a hundred thermometers and anemometers the temperature and the amount of air entering every section of the house is at once ascertained, and the director of the ventilation, by means of a series of handles and cocks, can drive the air to any part of the house which is most in need of it. The air escapes from the roof and rises to a gallery at the very top of the house. The theatre is lighted entirely by electricity, there being some 5000 incandescent lamps; and, in case of a temporary failure of the electrical apparatus, there are lanterns provided with wax candles throughout the building. A theatre without gas is certainly a curiosity. We have often envied the last generation, who enjoyed seeing Garrick, the Kembles, and Kean in the comparatively cool atmosphere of a candle-lit theatre; but here we have the brilliant illumination of electricity, without even that small amount of fouling of the air which even a candle will produce. A good feature of the new theatre seems to be the separation of the staircases from the house. These are placed in distinct wings, and appear to be of most ample dimensions. The terrible catastrophe at the Ring Theatre some few years ago has been productive of good, as is seen by the various precautions taken against accident. The house is

constructed of incombustible materials, and even for the shifting of the scenes iron is exclusively employed. With the exception of the wooden floor to the stage, there is nothing combustible; and the scenery, except that in actual use, is kept at a depôt at some distance from the house. There is, it is needless to say, an iron curtain between the stage and auditorium; it is double, and if it be lowered with a jerk water flows between the double skins. It is difficult to see what more could be done than has been done in this really imperial theatre to secure the comfort and safety of the audience. The decorations are in every way worthy of the house, but a description of these is unnecessary in this place, although we may mention that the great Englishmen, Shakespeare, Garrick, and Edmund Kean, have (among others) inspired the decorative artists. It is doubtless owing to the fact that the Burg Theatre enjoys a State subvention, and is in fact a Government institution, that such lavish expenditure has been made in this magnificent attempt to obtain perfection. Our theatres, unfortunately, have not the public purse to dip into, but nevertheless we believe that private enterprise might safely provide many of the luxuries we have described. More fresh air and less gaudy decorations is what is wanted in our theatres. It should be added that the prices at the Burg Theatre in Vienna are, or used to be, very much below those of even our second-rate houses in London.

THE NEW ENTRIES.

THE following is a list of the fresh entries for the current winter session at the various medical schools from which returns have been received:—

	Entire course.	Special classes.	Prelim. Scientific.
St. Bartholomew's	108	20	*
Guy's	74	13	16
St. Thomas's	94	27	5
St. Mary's	71	40	—
London	78	42	—
University College	70	18	65
Charing-cross	50	17	1
Middlesex	59	37†	6
King's College	35	57‡	19
Westminster	16	7	—
St George's	31	2	—
Newcastle-on-Tyne	34	34§	—
London School of Dental Surgery	26	—	—

* Students for the Preliminary Scientific Examination are not counted as students of the hospital.
† Including 7 dental.
‡ Including 37 for the bacteriological course and 10 dental.
§ Including 1 dental.

ENTERIC FEVER AT KILHAM.

THE recurrence of enteric fever at Kilham in the Driffield rural sanitary district of the East Riding of Yorkshire claims the immediate attention of the sanitary authority. It would appear that no final remedy is practicable until a scheme of sewerage has been carried out, and owing to a difficulty in securing land for the outfall works, it is possible that compulsory powers of purchase may have to be exercised, which will involve a delay of about another year. But in the meantime the existence of the disease in connexion with the old-fashioned abominable midden-privy system should lead to a reform in the direction of the method of excrement disposal. Unless the sanitary authority are convinced that on the provision of a sewerage system waterclosets will become universal in Kilham—a most unlikely result in a Yorkshire village,—they should at once proceed to deal with all middens and privies causing nuisance, and secure their reconstruction on the principles explained and illustrated in the annotated edition of the Model Bye-laws. And the principles embodied in these bye-laws, if not already in force, should at once be applied to all the more populous parts of the district. Such action on the part of the authority, together with the immediate organisation of a system for the scavenging of refuse under their own control, would certainly remove an obvious cause of enteric fever from their midst.

NON-LIABILITY OF PARENTS FOR CHILDREN OVER AGE.

MEDICAL men are constantly asked to see sons and daughters who are over age in the houses of their parents, and naturally look to the parents for the payment of their accounts. Now and again this expectation is disappointed. A case in point is reported in the *Leeds Mercury*. Mr. Horsfall sued in the County Court Mrs. Baines, of Church Cottage, Headingley, for attendance on her son over age, now dead. Mr. Horsfall had attended another son previously, and was paid by his executors. Mrs. Baines never said anything to lead Mr. Horsfall to doubt she would pay the bill. Indeed, she asked for some abatement, and he appears to have been willing to consider this. But on her suggesting to give £10 in full settlement of £18 18s., the plaintiff naturally declined. Thereupon she denied her liability, and Judge Greenhow has given a verdict in her favour, with costs, remarking that she had never made any promise to pay the plaintiff, and was therefore not liable. This may be law, but it is not justice, and cannot be very satisfactory even to the defendant. Let medical men take note of the judgment. Mr. Horsfall has acted more in the interest of the profession than his own in the suit, and he has been badly treated. He will, at any rate, have the thanks of the profession for making clear a point of law.

THE "B.P.C." UNOFFICIAL FORMULARY.

THE new edition of the Unofficial Formulary has evidently been the subject of much careful work. The very brief preface scarcely indicates this, since, although it makes mention of the addition of sixteen new formulæ, and draws attention to a suggested change in the mode of preparing an emulsion of cod-liver oil, to realise the labour expended, careful comparison with the issue of last year is needed. Among the additions we note the following: acetum ipecacuanhæ, elixir phosphori, elixir saccharini, extractum tritici liquidum, liquor ferri hypophosphitis fortis, syrupus codeinæ, syrupus ferri bromidi, syrupus ferri, quininæ et strychninæ hydrobromatum, syrupus ipecacuanhæ aceticus, syrupus pruni Virginianæ, tinctura calendulæ florum, tinctura capsici fortior, tinctura euonymi, tinctura phosphori composita, and unguentum oleo-resinæ capsici. The elixir of phosphorus appears to be a convenient suggestion for the introduction of a solution of phosphorus. The elixir of saccharin is prepared by dissolving saccharin in presence of bicarbonate of sodium, and can be given in comparatively small doses; it takes the place of glycerine in the new emulsion of cod-liver oil, which also differs from the former emulsion in the employment of yolk of egg, and of essential oil of bitter almonds in place of oil of cassia. The formula for the liquid extract of triticum, from *triticum repens*, the couch-grass or dog-grass of the United States Pharmacopœia, will probably find favour as a diuretic and emollient preparation. The strong solution of hypophosphite of iron can be employed by itself, but it is also introduced in the preparation of the compound solution of hypophosphites, and in the compound syrup of hypophosphites. The liquor hypophosphitum compositus was formerly designated liquor ferri hypophosphitis compositus, but the method of preparation has been somewhat modified. Another change

is to be noted in the solution of coal tar, where the alcoholic solution of quillaia bark is prepared as required, instead of appearing under a separate heading. It is a satisfactory comment upon the work of the committee that this tincture of quillaia and the syrup of the hypophosphites of calcium, manganese, and potassium are the only formulæ that have been omitted in this new issue. The utility of the Unofficial Formulary has this year been enhanced by the publication of an interleaved copy in a limp linen cover. As a relief from the "incubus caused by the use of remedies of secret composition," this little book merits the attention of prescribers and dispensers, and reflects great credit upon the members of the Formulary Committee.

POST-EPILEPTIC STATE.

DR. HUGHLINGS JACKSON returns to his favourite study of evolution in the nervous system in the current number of the *Journal of Mental Science*. "There are three levels of evolution; the highest centres, popularly called mental centres of the cerebral system, make up the highest level, and this level is only a most complex evolution out of the middle level, as the middle is a less complex one out of the lowest, and as the lowest is a least complex one out of parts of the body, which parts that lowest level represents most nearly directly." By the expression "parts of the body" is here meant all parts other than the nervous system, and they make up the lowest level of the whole organism. In the amœba, which possesses no structure worthy of the name of a nervous tissue, there is no complexity, no three levels; we have here only a dead level throughout, each molecule being its own nervous representative, and therefore representation is of the most perfect and accurate description. As differentiation proceeds, representation becomes less perfect as regards the individual units, but more useful to the entire organism; the nervous system is a representation on the utilitarian principle of the greatest good for the greatest number. The epileptic process begins in some part of the highest cerebral centres, and when the fit is a severe one all the levels are greatly involved; the peripheral effects, which are the convulsion and its equivalent, are directly dependent on discharges of the lowest level. The post-epileptic condition, supposing the fit to have been a severe one, is the sum of the after-effects of discharges of all the levels, and must be regarded as some universal paralysis or loss of power of the nervous centres. It follows that the paralysis, though universal, is not complete, and is not equal in the different levels or at different parts of the same level. In post-epileptic mania, the lower levels are engaged in producing movements, and these are engaged subordinately to all that is left intact of the highest level.

THE POST-OFFICE AND IMMORAL LITERATURE.

THE postal authorities of Sydney have taken energetic action with regard to the distribution of indecent publications, by interrupting the transit of letters and obscene broadsheets relating to a questionable specific. The method of the chief offenders in this matter was a singular one, and practically entailed for its success a species of involuntary collusion on the part of the postal department. After desiring their correspondents to address communications to the private post-office box of a firm with which they had no connexion whatever, they had the impudence to request the postal officials to forward letters &c. found in the said box, and directed in their names, to themselves. The Postmaster-General naturally objects to become responsible for the conveyance of these filthy communications. He has therefore had a number of the letters in question opened and returned to their writers as "dead," and refuses to forward any more such without prior examination. The mind of the public in this country—and likewise, it would appear, in Australia—is awaking to a just sense of the difference between liberty and licence in matters of this kind. Legislation of a restrictive character could only be regarded in the light of a deliverance, and we cannot wish for it a truer keynote than that supplied by the resolution of the Sydney postal department.

Next of kin to the disgusting trash, by means of which an education in vice is carried out, are the penny histories of murder and felony which abound on many bookstalls. The ruinous effects of this kind of reading cannot be denied. If proof of its actual influence be required, we need only point to the recent confessions at Tunbridge Wells. Such dangerous productions are simply so many manuals of instruction in crime, and their efficiency as such has been proved to demonstration in the case referred to. Surely after this no lover of liberty will question the need of an authoritative censorship which will purge the land of these disastrous publications.

THE BENTLEY TESTIMONIAL.

AT the opening meeting of the session of the Pharmaceutical Society the President gave a report of certain proceedings which had resulted in the Bentley Testimonial. Professor Bentley, like Professor Redwood, had, after nearly forty years' teaching, found it necessary to retire, and some of his old pupils and friends had desired to present him with a token of their esteem. This had assumed the form of a portrait and a purse, and Mr. Plowman, the secretary and treasurer, was asked to state more fully the result. The latter said that the movement was a complete success, and the President was asked to accept, on behalf of the Society, a portrait in oils, by Mr. Arthur J. Foster, of their old friend and teacher. The portrait was now in the Examination Hall for the inspection of the members and subscribers, and the President was also asked to present Professor Bentley with a purse of 300 guineas as a mark of personal esteem. The President accepted the portrait, which will be placed on the walls of the institution, side by side with those of other distinguished men, where it will perpetuate the memory of Robert Bentley, when, in the inevitable course of things, the Society and his friends can no longer enjoy his personal presence.

PULMONARY SURGERY.

THE case read at the Clinical Society by Dr. Pasteur at its first meeting presents features of pathological and operative interest. A male child aged seven developed gangrene of the right lung, chiefly involving the upper and front parts. The physical examination detected signs of a large cavity, and from this the boy expectorated gangrenous material. As improvement in the child's condition was not manifested under stimulant and antiseptic treatment, Dr. Pasteur asked his colleague, Mr. Bilton Pollard, to open and drain the cavity. The incision was made at the seat of the most marked signs of a cavity in the second right interspace, and the knife almost at once entered the abnormal space, for the pleuræ were firmly adherent and almost no thickness of lung existed between the pleura and the cavity. The finger introduced into the opening detected a large space reaching downwards to the sixth right rib, where it was judged advisable to make a counter-opening, so as to secure free drainage. The cavity was cautiously syringed and washed out with a solution of boric acid. The child began to mend at once, and for ten days afterwards, when signs of failure set in, and proved to be chiefly due to pericarditis, which the necropsy showed had extended from the gangrenous lung. The pathological interest of the case consisted principally in the mode of origin of the gangrene. Careful dissection and inspection proved that a fistulous tract placed the

œsophagus in communication with the right bronchus close to the tracheal bifurcation. Many suggestions of the mode of origin of this fistula presented themselves for consideration, but the view that a fish-bone or such-like body had perforated the œsophagus and led to the bronchial fistula seemed most probable. The presence of a congenital diverticulum of the gullet is also worth mention.

HEALTH OFFICERS AND THE LOCAL GOVERNMENT ACT.

IN another column we publish the letter of a correspondent ("W. W. H."), who is unduly apprehensive of the effects of the Local Government Act upon existing medical officers of health. This letter is based upon a wrong impression of the scope of the section to which he refers; we would therefore, for the convenience of those who have not a copy of the Act, point out, firstly, that the requirement of possession of a certificate in sanitary science or public health is limited to those officers who have not during three consecutive years before Jan. 1st, 1892, held office in relation to a population of 20,000 as enumerated at the last census. Secondly, this requirement is still further limited to those seeking appointments after that date. The total number of men thus affected will not, therefore, probably be great; but, under any circumstance, we cannot symphathise with the proposal of our correspondent that universities and colleges should make presents of certificates, which, it must be recollected, certify to the possession of knowledge, without proper steps being taken to ascertain that this knowledge really exists.

VOLUNTEER MEDICAL SERVICE.

THE committee appointed by the Secretary of State for War to consider what steps should be taken to render effective the Volunteer Medical Service (including, we presume, the questions raised by the recent Warrant establishing an Army Medical Reserve of Officers and the objections raised to it) is now, we understand, sitting and taking evidence. The following are the members of the Committee: — Colonel Henry Eyre, C.B., M.P., 4th Volunteer Battalion, the Sherwood Foresters, (Chairman); Major-General A. I. Lyon Freemantle, C.B., Deputy Adjutant-General for Auxiliary Forces; Sir Thomas Crawford, M.D., K.C.B., Director-General, Army Medical Department; Colonel Howard Vincent, C.B., M.P., the Queen's Westminster Rifles; H. T. De La Bere, Esq., Deputy Accountant-General; Surgeon-Commandant A. T. Norton, 1st Division, Volunteer Medical Staff Corps; Surgeon-Major William Robert Smith, M.D., 3rd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment); and Charles Morton, Esq., (Secretary).

A REFUGE FOR AGED OUTCASTS.

LAST week we noted with satisfaction a scheme brought forward by Mr. Barnardo for the better accommodation of the street Arabs in the east-end of London. Almost simultaneously comes a proposal of a somewhat similar kind, which aims at establishing a night refuge for aged outcasts. In founding such institutions, one is perhaps too apt to ignore the needs of age and to think only of those who are beginning life, and whose power for evil, whether taken in or given forth, is greater in proportion to their younger energies. There is, however, no reason why both young and old should not be included in this beneficent work, and, as a matter of fact, substantial aid has already been rendered to the former. The claim of the aged is for several reasons a valid one. By affording them the needed shelter we abate somewhat the sum of homeless misery which abounds in every city; we make some provision for their moral welfare, and lessen in proportion the influence of their vicious example on their juniors; and, lastly, we offer, in a very limited measure it is true, that physical comfort the want of which in a cold season is for them very commonly a fatal privation. The sum which the Bishop of Bedford asks for in support of his scheme is £2000, no great matter for the most prosperous community in the world. It is worth giving on the score of charity, and the hardest economist will be gratified to find it repay him somewhat by a saving in the rates.

A NEEDFUL LESSON.

THE magistrates of Bootle had a painful duty to perform last week. Two persons were brought before them for reckless conduct in removing from infected houses clothing and bedding which had been used by fever patients. The first offender was a coal-porter, who took the infected articles from a room where his child had died from scarlet fever to another house. The second was a poor woman who had pawned a quilt to buy food for her fever-stricken son. In both cases nominal fines were inflicted. The magistrates undoubtedly took the proper view of these cases, for the Public Health Act is before all things educational, and in these pitiable cases where ignorance was pleaded, it was sufficient to teach the lesson that such conduct must, in the public interest, receive punishment. But we would desire to submit to the inhabitants of Bootle, and indeed of all other towns, the consideration whether this ignorance is not a reproach to themselves. So much good has been done by local sanitary associations, by recognising that the education of the people is the basis of public health administration, that we would desire to see such societies constituted in every part of the kingdom. In Bootle the local authority will, we trust, be at pains to make these con- victions known to every inhabitant of the town, otherwise the effect of the punishment which has been inflicted will be lost; but this could best be done if working with them were a body of lay helpers such as we have mentioned.

ROYAL COLLEGE OF PHYSICIANS.

THE lecturers at present appointed for 1889 are as follows:—Gulstonian, Dr. Tooth; Croonian, Dr. Brunton; Lumleian, Dr. John Harley; Milroy, Dr. Arlidge.

PENALTY ON A CHLOROFORMIST.

ACCORDING to recent intelligence from Sydney, a death from chloroform has been followed by somewhat serious consequences for the medical man in charge. A lawsuit undertaken by the husband of the deceased has resulted in a verdict of guilty and an award of £200 damages, on the ground that the anæsthetic was improperly administered and that the patient was subsequently neglected. We have not at our disposal the data necessary to enable us either to affirm or to question the justice of this decision. We merely mention the incident as one which is fitted to remind our readers of the need of care, and the responsibility which in every case attends the use of anæsthetics. It teaches the importance of remembering that accusations of malpraxis may at any time be preferred by bereaved relatives in the event of accident. Such a proceeding would usually be a purely vexatious one, and would serve no useful purpose. As such it would find but little favour in a court of law. Still we must always bear in mind that the unexpected may happen, and the case we have quoted shows that adverse decisions in such cases are by no means impossible. It particularly impresses the necessity of obtaining the intelligent consent of any respon-

sible relatives before employing an anæsthetic, and also of adhering strictly to rule in its administration, so as to leave no possible avenue for injurious reflections.

THE HARVEIAN ORATION.

THE meeting at the Royal College of Physicians on the occasion of the Harveian Oration was curiously different from those of former years. The resolution with regard to academical dress was by no means universally observed, and perhaps influenced the attendance, which appeared scarcely equal numerically to the audience ordinarily present. The Oration, in spite of its length, was highly interesting and suggestive, although the validity of some of the steps by which Dr. Latham reached his conclusions might not be quite evident to the whole of his audience. The arrangement of the Library was new, the speaker addressing the audience from the end instead of the centre; but Dr. Latham's strong voice and clear delivery proved equal to the occasion.

MEETING OF THE GENERAL MEDICAL COUNCIL.

THE Council will meet on November 27th, not on the 21st, as has been erroneously stated. In addition to the business affecting the Register, the reports of the inspectors appointed under the Act of 1886 will engage the attention of the Council.

FOREIGN UNIVERSITY INTELLIGENCE.

Giessen.—Dr. Löhlein has been invited to succeed Professor Hofmeier in the chair of Gynæcology.

Kharkoff.—Professor T. Obolenski has been transferred from the chair of Special Pathology to that of Therapeutics, vacated by the death of Professor Lashkevich. Dr. Shiltoff, *privat docent*, has been promoted to be Professor Extraordinary of Special Pathology.

Vienna.—Professor Bamberger, having obtained leave of absence for the present winter session on account of his health, the duties of his chair will be undertaken by Dr. Ed. Neusser.

AT the recent Bologna Congress of Hygiene the discussion of Dr. Sorra's report on the prevention of syphilis was very animated. Signor Crispi's Contagious Diseases Act was assailed on two grounds—first, that it did not attain its prophylactic object; and, secondly, that, even if it did, it was an intolerable violation of the liberty of the subject. Ultimately it was agreed that, prostitution being the principal medium of the spread of syphilis, Government should exercise surveillance over "unfortunates"; that these should be compelled to inscribe their names in the register kept *ad hoc;* that sanitary inspection of them should be practised periodically or at brief intervals; and that dispensaries sufficient in number should be established for their benefit. The syphilicomia now in working should, it was further resolved, be maintained.

ON Saturday last, Dr. William Thelwall of Farndon, near Chester, was presented with the bronze medal of the Royal Humane Society, for his gallant conduct in jumping into the river Dee and rescuing a man who attempted to commit suicide in the river, and found to be in an unconscious state.

WE are glad to learn that the injury inflicted by a prisoner in Kirkdale Gaol on Dr. Barr is yielding favourably to treatment at the hands of Mr. Chauncy Puzey and Mr. Damer Harrisson. There appears to be no danger of deprivation of the use of the hand through severance of the tendons.

THE prevalence of measles at Bootle, near Liverpool, has assumed serious proportions. The school authorities are endeavouring to prevent any further spread by excluding scholars from infected houses, and, if this partial measure does not succeed, it is expected that the sanitary authority, acting under the powers given to them by the Education Code, will require the complete closing of the schools for a definite period.

DR. GRAILY HEWITT has been elected Honorary Fellow of the American Gynæcological Society.

REPORT OF THE LANCET Analytical Sanitary Commission ON EGYPTIAN CIGARETTES.

FOR some time past stories have been in circulation in regard to the noxious effects produced by the smoking of Egyptian cigarettes. These have been intensified by a letter which lately appeared in a morning contemporary under the signature "Medicus," and by the correspondence which followed upon it. The authority of "Medicus" was promptly impeached by the officers of the hospital from which his letter was dated. The interesting letter from our Cairo correspondent, which we printed on Sept. 29th, showed the utter improbability of some of the statements made, not only by "Medicus," but by several writers who followed him. Nevertheless, the practice of cigarette smoking has increased so much of late, and cigarettes imported from Egypt have become so popular, that we thought it right to undertake an experimental inquiry into the matter. We therefore purchased from London tradesmen cigarettes of five well-known brands, and submitted them all to most careful analysis. We think that the samples selected may be regarded as fairly representative.

The charges brought against imported Egyptian as distinguished from other foreign cigarettes, and from cigarettes made in England, are mainly these: 1. That they contain opium, or some other foreign and deleterious substance. (In the epistle of "Medicus," he asserted that he had found in foreign cigarettes "a large proportion of opium and an unclassified alkaloid.") 2. That the paper used in the manufacture contains arsenic, or copper, or chlorine. 3. That the tobacco consists in part of the Smyrna variety known as "Solouk," or "Aya Solouk," which is coarser, stronger, and more irritating to the throat than genuine Turkish. 4. That in consequence of one or more of the above defects Egyptian cigarettes are apt to produce malignant throat diseases.

Our experiments were directed to the solution of the first two of these questions, and as far as they went they were conclusive. They were conducted as follows, and the results were in every case identical. 1. The tobacco was examined under the microscope with the greatest care. In no case was any trace of foreign leaf or foreign substance discovered. 2. The tobacco was exhausted with dilute acetic acid, and the filtered extract treated with lead acetate. The precipitate was decomposed by hydrogen sulphide and again filtered. The concentrated filtrate gave no colour with ferric chloride, showing the absence of meconic acid; it contained, of course, much malic acid. The liquid filtered from the lead precipitate was freed from lead by hydrogen sulphide, and from nicotine by the ether method, and was then tested for morphine in the ordinary manner. Not a trace was detected. In other experiments the nicotine was removed by distillation in a current of steam. No alkaloid remained behind. 3. The paper of the cigarettes was next examined. No arsenic could be found, even by tests of the utmost delicacy. We do not say that arsenic was absent, but we are able to assert with confidence that a dozen of the cigarettes did not contain as much as $\frac{1}{10\,000}$th of a grain of the poison.

With regard to copper the case was different. We found

a minute trace of the metal in all the papers. There is nothing remarkable in this. Copper is often found in the ash of paper, and in this case its presence is easily accounted for. Each cigarette had a metallic label upon it, and the metal which had been used was the ordinary copper alloy. The fine powder of imitation gold is easily disseminated, and probably the trace of copper found in the paper, even when the label had been cut off, was due to this source. The presence of copper is of no real significance, for its quantity is very small and the metal is not volatile; but the force of prejudice is strong, and we should advise manufacturers to avoid in future the use of this material.

As to the absurd suggestion of chlorine being present in the paper, it is only necessary to say that not a trace was contained in any of the samples we examined.

It only remains to be said that the cement used in closing the cigarettes was in every case starch, as was shown by the iodine test. To this no possible objection can be made.

Having disposed by the unerring method of analysis of all other charges against Egyptian cigarettes, we must consider the very important allegation that the throat irritation so often complained of is due to the admixture of the Salouk tobacco of Smyrna. Analysis does not help us here, but we have made careful inquiries from persons of experience, and have convinced ourselves that our Cairo correspondent has given a correct account of the Egyptian cigarette industry. It is admitted on all hands that the Smyrna leaf, or, at any rate, the tobacco known as Salouk, is not only cheaper, but is more pungent and irritating to the throat than genuine Turkish tobacco. The flavour of Salouk is peculiar, and to some is agreeable; critical cigarette smokers detect it at once. But it seems evident that continued use of it is attended with risk, and that the slightest sign of throat irritation should warn the smoker to change his cigarette, if not to abandon it. There appears to be nothing akin to adulteration in the Egyptian cigarettes of the best makers. All is a question of the selection, or, as wine merchants would call it, the blending of the tobaccos. The alleged addition of opium is not only most improbable, in view of the very high price of the drug, but is disproved by chemical analysis.

Summing up the results of our investigation, we report as follows. The Egyptian cigarettes which we have examined are made from genuine tobacco. No foreign substance, and particularly no opium or "unclassified alkaloid" (whatever that may mean), is added. The paper and the cement are pure, the only possible objection being the trace of copper we found in the ash, which is probably due to the metallic lettering. Some proportion of Smyrna tobacco is commonly incorporated with the Turkish, which is always used. If this Smyrna or Salouk tobacco is present in excessive quantities, the throats of some persons, if not of all, will be affected injuriously. It is probably safer to avoid it. Doubtless there are smokers who enjoy the Salouk flavour, as there are coffee drinkers who like an admixture of chicory The smoker must select his cigarette for himself; and we trust that in this case, as in so many others, the forewarned will be forearmed. Let it be remembered that tobacco, to say nothing of opium, is not grown in Egypt. The Egyptian manufacturers select and blend their leaves, and, to judge from the popularity of the cigarettes, they do so with great skill. In future they will probably be more careful in the use of Salouk, as every motive urges them to retain and extend their trade. Physicians will do good service by watching the effects upon their patients of cigarette smoking. If they find that the change from Egyptian to Turkish or English cigarettes removes unpleasant throat symptoms, there will soon be a definite condemnation of Salouk tobacco.

BRITISH INDIA.

THE statistical abstract and the annual report on the Moral and Material Progress of India do not convey to their readers the impression that the administration of India has been particularly successful in the year 1886-7. The period has indeed been marked by disturbances in Burmah and its neighbourhood, for which the Government cannot be held primarily responsible, but in parts remote from this centre of disturbance come reports of what cannot be regarded as satisfactory results of our administration, and perhaps the worst feature of the official review is the easy optimism with which it records facts of serious and unpleasant import. Thus we find a marked increase of crime explained with apparent satisfaction on the ground that "the courts have not the same prestige as formerly among the common people; and an exaggerated belief in the power of pleaders to secure acquittal of offenders appears to prevail. The bulk of the criminal work is now done by native magistrates, who, though fully capable, seem, in many cases, to err in too great readiness to acquit or to pass inadequate sentences." If these criticisms are well founded, they ought to serve as the ground of a serious effort to remedy what is assuredly a grievous defect and serious weakness of the administration, instead of being put forward as affording a satisfactory alternative to the explanation that there is an increase of criminality on the part of the people.

Equally unsatisfactory, as it seems to us, is the official optimism in view of the very high rate of mortality which prevails in Indian gaols. In Madras and in the North-west Provinces and Oudh the statistics of criminal mortality show, what we are accustomed to in England, a lower death-rate prevailing in prisons than among the general population. Not only does the careful regimen of prison life conduce to this result, but the absence of infants and the paucity of the numbers of persons extremely old exercise a powerful influence in the same direction; while more influential still in sophisticating the numerical record is the humane practice of releasing from custody prisoners whose health has given way in confinement. All these influences act, as we presume, upon the Indian convict community; but, with the exception of the two Provinces which we have just named, all exhibit the strange phenomenon of a death-rate among the occupants of the prisons exceeding, and in most instances largely exceeding, that of the general population. Thus in Lower Burmah the prison death-rate is as high as 61 per 1000, while that of the general population does not exceed 15. In Assam the one is 64, the other 28; and in the Central Provinces a prison death-rate of 65 is recorded, with a general death-rate of 33. It is of course easy to suggest speculative explanations, as that the registration of death among the general population is very inefficient and incomplete. That may be so, but it is at least plain that in the cases which we have named the prison death-rate is abnormally high. It would be much more satisfactory to learn that the authorities in India, sensible of the importance of improving upon these very unsatisfactory figures, were resolutely taking in hand the improvement of the sanitation of their prisons, rather than that they are resourceful in the simple art of throwing discredit on the figures which they have produced.

In the practice of vaccination some progress, if slow, appears to be annually made. The Indian populations have a sufficiently constant and near acquaintance with smallpox to value prophylactic measures, which some more enlightened, or at least more privileged, communities do not. Little by little the use of this preventive is spreading over the vast continent, and although we may feel impatience that its progress is but slow, we may hope that eventually it will make the fell disease against which it is employed as scarce and as harmless in India as in England.

OUR ARMY.

THE general annual return of the army for 1887 shows the average strength of all ranks, including colonial corps, to have been 209,574: of these, 106,767 were employed at home and 102,807 abroad. The average strength of non-commissioned officers and men was, exclusive of colonial corps, 199,420; of these 1909 died and 2566 were discharged as invalids, being respectively in the ratio of 9·57 and 12·87 per 1000. There were during the year 10,668 men, or 53 per 1000, transferred to the First Class of the Army Reserve. The number of recruits enlisted during the year was 58,645, of whom 18,001 were "rejected prior to attestation," presumably on medical inspection, being 307 per 1000; and 2003, or 34 per 1000, after attestation, probably for military reasons. Of the whole number, only 31,234 joined the army, or 533 per 1000 enlisted. Of those who joined, 12,575, or two-fifths of the whole, were between eighteen and nineteen years of age, and 20,048, or nearly two-thirds, were under twenty, being

very slightly in excess of the proportion in the preceding year. Of the recruits who joined, 19 died and 16 were invalided within three months of the dates of enlistment; these numbers give an *annual* ratio of 2·48 and 2·12 per 1000. The total loss from these two causes in three months amounted to 1·15 per 1000. If we may judge of the physique of the recruits by their weight, there has been an improvement compared with the preceding year, the proportion under 120 lb. having been 182 as against 187, and above 130 lb. 467, as against 439 per 1000. The composition of the army as regards age on January 1st, 1888, was as follows:—Under twenty, 156 per 1000; from twenty to twenty-five, 497 per 1000; from twenty-five to thirty, 223 per 1000; thirty and upwards, 124 per 1000. So that nearly two-thirds of the men actually serving were under twenty-five years of age. As regards nationality, there were 745 English, 85 Scotch, 157 Irish, and 13 colonials and foreigners per 1000 of force. As regards educational acquirements, 22 per 1000 could neither read nor write, 13 per 1000 could read but not write, 13 could write but not read, 99 could read and write only, and 853 per 1000 were reported as "better educated."

In addition to the Regular Army, there was an average force of 48,950 men of the Army Reserve. Of these 351 died, or 7·17 per 1000; but it is quite possible that the mortality may be understated, as 1801 were struck off the strength for absence, some of whom in all probability had died, but their deaths had not been reported. The ages of the men composing the Army Reserve were: under thirty years, 596; from thirty to thirty-five, 304; from thirty-five to forty, 25; and over forty years, 75 per 1000; so that nine-tenths of the Reserve are under thirty-five. The men under forty almost all are in the First Class, and, with a few exceptions, those over forty are enrolled pensioners. The average strength of the Militia, exclusive of the permanent staff, appears to have been 109,603, of whom 431, or 3·84 per 1000, are reported dead; but, as during the year 10,288 deserted or were struck off as absentees, it is very probable that this is considerably under the actual death-rate. The number of enrolled Volunteers is stated at 226,752, and among them 776 deaths were reported, or 3·42 per 1000, but we fear little reliance can be placed upon all the deaths having been reported.

HEALTH OF THE METROPOLITAN POLICE.

THE report of the Chief Surgeon, Mr. A. O. MacKellar, M.D., F.R.C.S., shows the average strength of the force in 1887 to have been 13,488, exclusive of the men employed in the outlying dockyard divisions. The number of cases of sickness among them during the year was 7339, and of deaths 69, being in the ratio of 544 and 5·16 per 1000 respectively. The average daily number on the sick list was 336·8, and on sick leave 26·1, giving together the proportion of 26·83 per 1000 constantly non-effective from sickness. These ratios compare favourably with previous periods. In 1880 the cases were 622, the deaths 6·41, and the constantly sick 31·69 per 1000.[1] The cases and mean sick are much lower than in the Household Cavalry and Foot Guards, but the death-rate is higher than in the former and nearly identical with that of the latter. The proportion of men at the higher ages, however, is so much greater in the Police Force as to vitiate any comparison of the mortality. The report does not give any information respecting the ages of the men, but a comparison of their length of service with that of the Foot Guards, as stated in the Adjutant-General's annual return, shows that the age-distribution of the two bodies must differ very materially. Thus, in the Police Force the proportion per 1000 of strength under five years' service is 342, five and under ten years 222, ten and under fifteen 163, fifteen years and upwards 274; while in the Foot Guards the proportion is 768, 140, 47, and 45 at these periods respectively.

As formerly, pulmonary diseases have been the most fatal, the deaths from them having amounted to 2·74 per 1000, or upwards of half the total mortality. It is worthy of remark that only 6 deaths are recorded under the head of injuries, 3 accidental, and 1 suicidal drowning, 1 suicidal cut throat, and 1 "fractured skull, laceration of brain, kicked by his horse."

During the year 391 men were removed from the force in consequence of being incapacitated by sickness or long service. Of these, 73 were discharged to pension for age, long service, and debility, leaving 318, or 23·58 per 1000, invalided for medical causes, of whom 26 were not entitled to pension or gratuity. Of the others 88 were unfit from rheumatism and gout, 72 from pulmonary disease, and 39 from the direct results of injuries.

There is considerable difference in the amount of sickness which occurs in the various divisions. In Whitechapel it reached 80 per cent., in Paddington 77, in Holborn and Finsbury 74, in Southwark 68, in Marylebone 66, and in the Thames division 61. The lowest ratio, with the exception of the Commissioner's Office, was 33 in the Woolwich division, and next to it 35 in the Greenwich. The causes of the marked difference in the divisions seem to deserve investigation by the Surgeon-in-chief.

Mr. MacKellar reports the introduction of a course of lectures to the police on ambulance subjects. These were in the first instance delivered by himself, but afterwards undertaken by Dr. Waters of the C Division. The results are stated to have been very satisfactory, and instances are given in which valuable assistance was rendered by constables who had gone through the course. Considering the exposure which the men undergo in all sorts of weather, and the risks they run from accidents in the discharge of their duty in the crowded streets and from the violence of drunkards and of the criminal classes, this report shows a very satisfactory condition of the force as regards health; and the low rates of sickness and mortality afford good evidence of the care taken by the medical staff in the discharge of their professional duties.

[1] THE LANCET, Aug. 20th, 1881.

SIX AT A BIRTH.

WE have received from Dr. Francesco Vassalli of Lugano a detailed account of the remarkable case of delivery of six fœtuses at a birth, concerning which we recently published a brief note. The mother was a countrywoman, aged thirty-six, living at Castagnola, near Lugano. With the exception of a sister who had been delivered of twins, there was no family history of any abnormality. She had been married two years to a healthy countryman, aged forty-one, a widower with ten children. He reported that five of his cousins had each had twins. Towards the end of the first year of matrimony the mother was delivered of a healthy child at term, whom she nursed until the eleventh month, when she again became pregnant. Menstruation had recommenced at the seventh month, but appeared in December for the last time, and its arrest was followed by the ordinary sympathetic disturbance and morning vomiting. The great dimensions speedily assumed by the abdomen led to some uneasiness, and were accompanied by frequent desire to micturate and obstinate constipation. Still there was no œdema of the lower extremities or external genitals, but from the severity of the vomiting the patient wasted considerably and became anæmic. Towards the fourth month the gravid uterus appeared the normal size at full term, and some slight œdema of the ankles appeared. On the morning of the hundred and fifteenth day she was suddenly surprised by a sudden discharge of fluid from the vagina. A midwife called in hastily found the foot of a fœtus projecting from the vulva, and had very little trouble in completing its birth by slight traction. Dr. Vassalli was then summoned, and noted an absence of fever and a generally satisfactory condition. The os appeared somewhat softened and dilated. On abdominal palpation, numerous small fœtal projections were observed, although no active movement or fœtal pulsation could be detected. The patient passed a good night, and, feeling perfectly well the next morning, got up to perform her ordinary household work. Towards the middle of the day she suddenly had a severe shivering fit, with lancinating pelvic pain. Rigors being frequently repeated, Dr. Vassalli thought it advisable to induce labour, especially in view of the violent pain and hæmorrhage and the weakness resulting from frequent vomiting. Puncturing the membranes with an ordinary darning-needle, he had little difficulty in extracting a second fœtus, and then became aware of a third, fourth, and fifth fœtus, which were successively extracted. Uterine contraction did not follow, and much anxiety was caused by the adherence of the

placenta and by some hæmorrhage. Three other doctors from Lugano arrived, and one of them, not without difficulty, removed the placenta, when a sixth fœtus was found, still surrounded by membranes. During the tedious delivery, which lasted seven hours, the patient was much excited and in great pain, but she subsequently made a complete recovery. Collectively the fœtuses weighed 1730 grammes, ranging from 305 grammes to 240 grammes. Their length varied from 22 centimetres to 26 centimetres.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kingston-upon-Hull Urban District.—The annual death-rate from all causes in Hull was 18·9 per 1000 during 1887. Amongst the zymotic group of diseases, 2 from small-pox, 67 from scarlatina, 123 from measles, 11 from diphtheria, 29 from continued fever, and 217 from diarrhœa are recorded. As regards diarrhœa, it is stated that the investigations carried out tend to prove that the mortality is greater in thickly populated districts, where ventilation is impeded, and where the subsidiary drains are choked with sewage. During the year, 377 patients were admitted into the isolation hospital, and Dr. Mason notes that the continued increase in the number of admissions and the willingness of parents and guardians to notify cases of disease are a guarantee of the popularity of the hospital and of the beneficial effects it has exercised upon the community. The average stay of each patient in hospital was forty-six days, the average cost per day being 1*s.* 11*d.*, amounting to an average of £4 8*s.* for each patient during the whole period of isolation. A detailed account is given in the report of the various matters in which sanitary progress is extending, and reference is made to the fact that the river Humber is now for sanitary purposes and for the prevention of imported diseases under the control of the joint port authority of Hull and Goole. There is also reference to the somewhat extensive work which is necessary in the borough and port in connexion with emigration, no less than 62,802 emigrants being inspected upon their arrival and departure.

Kensington.—Dr. Dudfield's report on the health and sanitary condition of the parish of St. Mary Abbott's, Kensington, during 1887, extends far beyond the limits of that parish; indeed, about a hundred pages are taken up with questions which, affecting the metropolis as a whole, have some bearing on the requirements of each division of London. These questions are very largely concerned with the measures for preventing the spread of infectious diseases, and they include matters relating to the general policy and practice of the Metropolitan Asylums Board, to the danger which may be anticipated of the spread of scarlatina by the milk of diseased cows, to the need for ambulance services for land and river, to the desirability of a system of notification of infectious diseases, &c. Nothing new is stated on these points, the references to them being rather in the nature of an extended summary of the current information available concerning them. Coming to Kensington proper, it appears that the general death-rate for 1887 was 16·4 per 1000, and that there was some excess of zymotic diseases. As to small-pox, it appears that a new departure has been taken by the Kensington guardians, who have made arrangements for a supply of fresh calf lymph for vaccination purposes, to be ready at the public station on the appointed vaccination days. What these arrangements are is not stated, and hence it remains to be seen how they will compare with the corresponding ones at the public station in Lamb's Conduit-street, which is open to the general public twice a week. Sanitary legislation, prospective and past, the attitude of the Metropolitan Board of Works as to the disposal of sewage, the state of the metropolis as regards water supply, and other allied matters are also dealt with, and a certain portion of the volume contains an account of the current sanitary work in the parish. Its special interest lies mainly in its forming a report in which the requirements of the metropolis as a whole are indicated, and in which is contained an annual account of the progress made in regard of some of the more important public health matters which affect Londoners generally.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5816 births and 3777 deaths were registered during the week ending Oct. 13th. The annual rate of mortality, which had been 18·3 and 18·2 per 1000 in the preceding two weeks, rose last week to 21·0, a higher rate than has prevailed since April last. During the thirteen weeks of last quarter the death-rate in these towns averaged 16·9 per 1000, and was 4·0 below the mean rate in the corresponding periods of the ten years 1878-87. The lowest rates in these towns last week were 11·9 in Derby, 16·8 in Bristol, 17·2 in Birmingham, and 17·8 in Brighton. The rates in the other towns ranged upwards to 27·3 in Preston, 28·0 in Bolton, 28·5 in Huddersfield, and 35·7 in Manchester. The deaths referred to the principal zymotic diseases, which had been 569 and 505 in the preceding two weeks, further declined last week to 461; they included 184 from diarrhœa, 76 from measles, 62 from whooping-cough, 55 from scarlet fever, 45 from diphtheria, 38 from "fever" (principally enteric), and only one from small-pox. No death from any of these zymotic diseases was registered during the week in Plymouth; while they caused the highest death-rates in Wolverhampton, Salford, Huddersfield, and Portsmouth. Diarrhœa showed the greatest mortality in Norwich, Wolverhampton, Portsmouth, and Preston; measles in Huddersfield; whooping-cough in Manchester, Derby, Cardiff, and Huddersfield; scarlet fever in Blackburn; and "fever" in Salford. The 45 deaths from diphtheria in the twenty-eight towns included 26 in London, 5 in Manchester, 3 in Newcastle-upon-Tyne, 2 in Bristol, and 2 in Nottingham. Small-pox caused one death in Hull, but not one in London or in any of the twenty-six other great towns. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital did not contain a single small pox patient at the end of the week. The number of scarlet-fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 983 at the end of the week, against numbers increasing in the preceding seven weeks from 774 to 921; 119 cases were admitted during the week, against 132 and 92 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding six weeks from 130 to 239, further rose last week to 311, and exceeded the corrected average by 20. The causes of 71, or 1·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Blackburn, Wolverhampton, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Oldham, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·6 and 17·0 per 1000 in the preceding two weeks, rose to 20·4 in the week ending Oct. 13th; this rate was, however, 0·7 below the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged from 10·1 and 14·4 in Greenock and Perth to 21·7 in Glasgow and 37·1 in Paisley. The 516 deaths in the eight towns showed an increase of 87 upon the number in the previous week, and included 18 which were referred to diarrhœa, 14 to measles, 11 to whooping-cough, 8 to diphtheria, 5 to "fever" (principally enteric), 4 to scarlet fever, and not one to small-pox; in all, 60 deaths resulted from these principal zymotic diseases, against 57, 54, and 45 in the preceding three weeks. These 60 deaths were equal to an annual rate of 2·4 per 1000, which was 0·2 below the mean rate from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had been 29, 23, and 18 in the preceding three weeks, were again 18 last week, of which 5 occurred in Glasgow, 4 in Edinburgh, 4 in Dundee, and 3 in Paisley. The 14 fatal cases of measles, of which 12 occurred in Paisley, showed a further increase upon recent weekly numbers. The 11 deaths from whooping-cough included 9 in Glasgow, and also showed a marked increase upon the numbers returned in recent weeks. The 8 deaths referred to diphtheria were within one of the number in the previous week; 6 occurred in Glasgow. The

deaths from "fever," which had been 8 and 4 in the previous two weeks, were last week 5, and included 2 in Glasgow and 2 in Paisley. Three of the 4 fatal cases of scarlet fever were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 74 and 76 in the previous two weeks, rose last week to 100, and exceeded the number in the corresponding week of last year by 17. The causes of 67, or 13 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 18·5, 24·4, and 23·3 per 1000 in the preceding three weeks, was 23·6 in the week ending Oct. 13th. During the thirteen weeks of last quarter the death-rate in the city averaged 20·1 per 1000, the mean rate during the same period being 16·2 in London and 15·5 in Edinburgh. The 160 deaths in Dublin last week showed an increase of 2 upon the number in the previous week; they included 13 which were referred to diarrhœa, 7 to whooping-cough, 3 to "fever," 2 to scarlet fever, and not one either to small-pox, measles, or diphtheria. Thus 25 deaths resulted from these principal zymotic diseases, against numbers increasing from 18 to 37 in the preceding four weeks; these were equal to an annual rate of 3·7 per 1000, the rate from the same diseases being 2·2 in London and 1·4 in Edinburgh. The deaths attributed to diarrhœa, which had increased in the previous six weeks from 7 to 19, declined last week to 13. The deaths from "fever," which had been 2 and 7 in the preceding two weeks, declined again last week to 3; while the 7 fatal cases of whooping-cough and the 2 of scarlet fever corresponded with the numbers in the previous week. Four deaths from violence and 8 inquest cases were registered; and 48, or nearly a third, of the deaths occurred in public institutions. The causes of 15, or more than 9 per cent., of the deaths in the city were not certified.

THE SERVICES.

Surgeon-General D. A. C. Fraser, M.D., has succeeded Surgeon-General J. Sinclair, M.D., as Principal Medical Officer at Malta, and Surgeon-Major J. L. Notter, M.D., has been appointed Professor of Military Hygiene at the Army Medical School, Netley, in succession to the late Professor De Chaumont, F.R.S.

ARMY MEDICAL STAFF.—Brigade Surgeon Jas. Inkson, M.D., to be Deputy Surgeon-General, ranking as Colonel, vice R. A. Chapple, deceased (dated Sept. 4th, 1888); Brigade Surgeon James Jameson, M.D., to be Deputy Surgeon-General, ranking as Colonel, vice E. H. Roberts, placed on temporary half pay (dated Sept. 14th, 1888); Surgeon-Major Joseph Ridge Greenhill, F.R.C.S. Eng., to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice J. Inkson, M.D. (dated Sept. 4th, 1888); Surgeon-Major Charles Alfred Atkins, to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice L. Corban, M.D., retired pay (dated Sept. 12th, 1888); Surgeon-Major Francis Howard, M.D., to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice J. Jameson, M.D. (dated Sept. 14th, 1888); Surgeon-Major William Patrick Smith is granted retired pay (dated Oct. 17th, 1888); and Surgeon-Major James Scanlan, M.B., is granted retired pay (dated Oct. 17th, 1888).

ARMY MEDICAL RESERVE OF OFFICERS.—Acting Surgeon Edwin John Hunter, 3rd Volunteer Battalion, the Hampshire Regiment, to be Surgeon, ranking as Captain (dated Oct. 17th, 1888).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon St. Lawrance ffrench-Mullen, M.D., has been placed on the Retired List of his rank at his own request (dated Sept. 23rd, 1888); Mr. Herbert N. Sweetnam, to be Surgeon and Agent at Skull.

VOLUNTEER CORPS.—*Artillery:* 1st Northumberland: Acting Surgeon H. S. Baumgartner, M.B., is appointed Surgeon (dated Oct. 17th, 1888). *Rifle:* 5th (The Hay Tor) Volunteer Battalion, the Devonshire Regiment: Charles Henry Wade, Gent., to be Acting Surgeon (dated Oct. 17th, 1888).—3rd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Allan Macfadyen, M.D., to be Acting Surgeon (dated Oct. 17th, 1888).

THE HONOURABLE ARTILLERY COMPANY OF LONDON.—The following announcement is substituted for that which appeared in the *London Gazette* of the 5th inst., regarding the undermentioned Officer:—Surgeon-Major Peter Yeame Gowlland retires into the Veteran Company, with the honorary rank of Brigade Surgeon, and has permission to wear his uniform on his retirement.

Correspondence.

"Audi alteram partem."

SHAKSPEARE AND HARVEY.

To the Editors of THE LANCET.

SIRS,—The letter of Mr. Litchfield and your interesting article thereon in THE LANCET of Oct. 13th are a very welcome change from the series of plaints with editorial comments on ridiculous questions of professional etiquette which so frequently disfigure the pages of the medical journals nowadays, questions which might easily be avoided by the exercise of a little of that brotherly spirit which is said to irradiate our profession, but which seemingly exists only in introductory lectures. Verily many such appellants virtually cry out with honest Dogberry, "But, masters, remember that I am an ass; though it be not written down, yet forget not that I am an ass." The question of the source and origin of our great poet's medical knowledge is a very interesting one; to us especially so, for, could we elucidate it, it would throw much valuable light on the question of medical education at that period, and the means and facilities (if any) which laymen possessed of gaining a peep behind the scenes in the medical schools. It is true that we are checked on the threshold by our ignorance of the details of our poet's every-day life, but, noting the care which lay writers of the present day take to master the medical details (with such success as is proportionate to their intelligence) which are necessary for their purpose, may we not infer by analogy that Shakspeare sought and took every means to give truth to his sketches? That he was possessed of such knowledge as could be gained by reading the available anatomical &c. treatises of the period is proved by the extracts already quoted, and that he must also have had opportunities of learning the practice of medicine is shown, I think, by the following extract from "Measure for Measure," act ii., scene 4:—

ANGELO: "O heavens!
Why does my blood thus muster to my heart,
Making both it unable for itself,
And dispossessing all my other parts
Of necessary fitness?
So play the foolish throngs with one that swoons;
Come all to help him, and so stop the air
By which he should revive."

What modern lecturer could give better instruction? Other and similar passages will doubtless be remembered by readers of our poet; but that he knew nothing of the circulation of the blood "beyond the glimmering knowledge which preceded the clear discovery of Harvey" I agree with you, Sirs, for is it not conclusively shown by the following extract from "Love's Labour's Lost," act iv., scene 3:—

BIRON: "Why, universal plodding prisons up
The nimble spirits in the arteries."

Herein is seriously enunciated a theory, peculiar, though universally accepted at the time he wrote (*circa* 1594), but justly ridiculed by Harvey in the Proeme to his "Anatomicall Exercises." Be it noted that the *veins* only are spoken of in connexion with the *blood* and *heart* in the aforesaid extracts, whereas to the *arteries* are allotted the *spirits* in the last-mentioned one.

The statement, however, that the discovery was "not announced, and, for the matter of that, not made until *after* the poet's death," demands special notice, for of the *possibility* of Shakspeare in his latter years hearing rumours, if not gaining more direct information, of the researches of Harvey, I have little doubt; though, by-the-bye, I cannot remember any passage in our poet that indicates any knowledge of the valves in the veins which his contemporary, Fabricius, had demonstrated to our anatomist; but, perhaps you, Sirs, or some of your readers, can enlighten me thereon.

What are the facts? Harvey returned to England in 1602, fresh from the demonstrations of Fabricius, and full

of enthusiasm for further research caused by the tantalising half-light thrown on the circulation of the blood by the discovery of the immortal Paduan; and I think there can be no doubt that from that time till his appointment to office in the Royal College of Physicians of London in 1615 he was diligently pursuing his anatomical investigations. Though he does not specify any date for the commencement of his studies of the motion of the heart, yet in chap. i. of his "Anatomicall Exercises" he clearly indicates that he was so occupied for some considerable period, for he writes: "*At last*, using daily more search and diligence, by often looking into many and severall sorts of Creatures, I did beleeve I had gain'd the motion and use of the *heart*, together with that of the *arteries*, which I did so much desire: Since which time I have not been afraid, but privately to my friends, and publickly in my Anatomie Lectures, to deliver my opinion." Moreover, the reasons which he gives later on for publishing his work indicates that some considerable time again elapsed between his final determination that he was right in his discovery and the actual date of publication (1628). So that I think it is not at all impossible (of the probability I leave others to judge) for our "Sweet Swan of Avon" to have heard in his retreat at Stratford some preliminary rumbles of the advancing storm which shook Warwick-lane to its foundations. I remain, Sirs, yours faithfully,

LEONARD K. H. HACKMAN, L.R.C.P. Edin.

Portsmouth, Oct. 15th, 1888.

FOOTBALL ACCIDENT CALLED "THE POPE TAKEN."

To the Editors of THE LANCET.

SIRS,—I have had such frequent experience of the condition of "pope," which Mr. Wherry described in his interesting communication in your issue of Oct. 6th, that I hope I may be allowed to endorse his explanation of its causation. It is, as he says, "produced by a sharp blow," generally from the knee of an antagonist, "upon the front and outer side of the thigh," and near to the middle of its length. I believe that, for the usual effect to be produced, the muscle (quadriceps) must be in a state of extreme contraction at the moment of impact, and that, as a result, a sort of temporary paralysis of the muscle fibres is caused. That there is no direct injury to a nerve is probable from the very short duration of the effect, and that little actual lesion occurs is shown by the rarity of the occurrence of any considerable bruising. So far as my personal and professional experience allows me to judge, the after effects are little more than a slight subcutaneous bruise and some stiffness in the muscle at the site of injury which rarely lasts more than three or four days. I am, therefore, surprised to see Mr. Wherry's statement, that it is followed by effusion into the joint, and can hardly imagine that this results from the same injury as that whose effects he has so accurately described.

The accident occurs more frequently in the Association game than that of the Rugby Union, but I have made inquiries of the leading players in both games at Oxford, and find that their accounts of the accident and its effects entirely coincide with the above description.

Mr. Clement Dukes in his letter of last week has, I think, confused several accidental lesions with the one described by Mr. Wherry, and principally that rupture of some portion of the fascia lata which occurs just as does the "lawn tennis leg" in persons who are, from age or want of training, not in the best physical condition. I have had several cases of this casualty sent to me, not only from among lawn tennis and football players, but from among athletes to whom the accident has happened while practising on the cinder path, where no blow could possibly have occurred.

I am, Sirs, yours faithfully,

JOHN H. MORGAN,

Grosvenor-street, W., Oct. 1888. Late President, O.U.A.C.

To the Editors of THE LANCET.

SIRS,—Having several times "had my pope taken" during the twelve years or so I played football, I was glad to see Mr. George Wherry directing attention to it in your columns, especially as I have never previously seen any mention of this well-known accident in medical literature. In my experience, in Rugby Union football a man "gets his pope taken" not so often by a "hack" or kick, as by the knee, or sometimes heel, elbow, or other projecting part of friend or foe, getting heavily pressed into the mass of muscles in front of the thigh. This may occur during a "scrimmage," as when several "men are down" together. This injury is also more likely to occur when the player's own leg is fully flexed, causing tension of the fibres of the quadriceps. A player is also apt to get his "pope taken" when collaring a man "running" straight at him. No doubt the accident may be caused by a kick, but this is more likely to occur in Association football, in which game the ball is often kicked at when higher in the air than in Rugby. However caused, it is, I think, simply a more or less severe and deep contusion of the muscles in the front of the thigh. If severe, there may be, of course, some effusion into the knee joint or bursal cavities. The symptoms are: rather severe, cramp-like pain at the moment of causation; temporary inability to move the leg: then inability to walk or run, except with the leg stiff. If not severe, a player generally finishes out the game fairly well; but next morning he is very stiff, and has to walk with a limp for a few days. There is also considerable tenderness on even slight pressure over "the pope." Discolouration of the skin usually shows itself a few days after the accident. If severe enough to require treatment, the best is rest and support followed by passive movements and massage. I doubt whether pads would be of any use in preventing this injury. I am an advocate, however, for light thin "shin" guards (as sold made up with split cane, whalebone, &c.) being worn, under the stockings if preferred, especially if the skin of the shin is already abraded. I have once seen a case of troublesome periostitis set up by repeated hacks on the same place. As to the true orthography of the word I know nothing. I have heard it generally described as "being poped," or more usually "had my pope taken." As to derivation, in my own mind I always thought that from its situation in the leg it had some relation to the pope's eye in a leg of mutton. The term is not a local one, as it is, I know, used in Hertfordshire, Surrey, Cornwall, Devon, and in Scotland, though less in Scotland.

I am, Sirs, yours obediently,

Dulwich, Oct. 8th, 1888. GEORGE B. BATTEN, M.D. Edin.

THE TREATMENT OF PUERPERAL SEPTICÆMIA.

To the Editors of THE LANCET.

SIRS,—Dr. McBean's case of Puerperal Septicæmia is a most interesting one. May I be permitted to supplement it with another somewhat similar?

Some time ago I attended a lady, aged twenty-nine, in her third confinement. Although her general health was very good, her puerperal history was decidedly bad. After the birth of her first child she had a rather profuse hæmorrhage. Her second labour was precipitate and attended with a most terrible and dangerous flooding; she was pulseless and unconscious for several hours. Her third confinement took place on May 7th. I remained with her throughout the labour, which was completed without any serious loss of blood. All went well for two days, when on the 9th she had a slight rigor. Quinine was at once ordered and the vagina was systematically washed out with permanganate solution. After this no particular anxiety was felt until the afternoon of the 11th, when I was hastily summoned, to hear that she had just come out of a very severe rigor. The temperature was 103·2° and the pulse 115. Finding the os uteri patulous, I immediately passed a soft elastic tube up to the fundus, and gently but thoroughly washed out the cavity with warm permanganate solution. The returning liquid was carefully examined, but nothing special was discovered. At 8.30 P.M. the temperature had fallen to 100°, and the next morning it was normal. Then for a week the temperature ranged between 99° and 100°, except on the evening of the 16th, when it suddenly rose to 105°, to as soon fall again to the previous level. After this it remained normal. The convalescence was uninterrupted; but for some months there were pain and tenderness in the region of the left broad ligament, and some swelling of the left foot and ankle after standing or walking. The history of the case shows, I think, that septic infection had already commenced.

If while congratulating Dr. McBean on the successful issue of his case I may be allowed a few words of criticism, I would suggest that it would have been better had he performed the *toilette* of the uterus on Dec. 16th instead of

delaying it until the 20th. Perhaps, also, that, short of absolute necessity, it would be better not to inflict fresh wounds in the presence of so much septic material; and, lastly, that in such cases the mere washing out of the vagina is little better than waste of time.

I am, Sirs, your obedient servant,

FRANCIS T. TAYLER, M.B.

Lewisham High-road, S.E., Oct. 16th, 1888.

MEDICAL OFFICERS OF HEALTH AND THE LOCAL GOVERNMENT ACT.

To the Editors of THE LANCET.

SIRS,—Next April the new County Government Act comes into force. Under the provisions of that Act many medical officers of health who do *not* possess certificates in sanitary science or public health will lose their appointments. It is generally considered a simple act of justice that Acts of Parliament in Great Britain should not have *retrospective* action. It is evident, however, that this particular Act is to be an exception to this just and fair rule, and that in consequence many medical men who have made themselves fully competent to act under the Public Health Act, and have probably given up general practice, are to be driven out of their appointments, and treated by an act of their country's Legislature in a very unjust and arbitrary manner. As no redress is to be got from Parliament, and in order to counteract this act of injustice, would it not be becoming and gracious on the part of the Colleges from which each medical officer of health obtained his diploma to present all holding office at the date of the passing of the obnoxious Act with the necessary "certificate"? Many of these men have probably arrived at ages when to pass an examination is an ordeal both undignified and derogatory.

I am, Sirs, yours truly,

Oct. 17th, 1888. W. W. H.

THE TEACHING OF ANÆSTHETICS.

To the Editors of THE LANCET.

SIRS,—I regret that Mr. Silk, in replying to my letter of the 22nd ult., should state that I advocate "the indiscriminate use of chloroform." It is a groundless assertion. Mr. Silk further asserts that in America "the administration of ether is almost universal." Mr. M'Guire, addressing the Virginia Medical Society in October, 1887, says, "In the Southern States chloroform is principally used." I quoted the statistics of Messrs. M'Guire and Chisolm on account of their large experience of chloroform as an anæsthetic, and also because their names are known and respected wherever surgery is practised.

Mr. Silk recounts some instances of local prejudice and hysterical legislation against the use of chloroform, such as took place in the New England States. Dreading that similar results might, from your condemnation of the medicine, follow in these countries, I wrote my protest of the 22nd, and I am glad to see I do not stand alone on the question. I object to the creation of a prejudice that would restrict me in the choice of a therapeutic agent. Let the blame be fairly bestowed and not always cast on the drug, when it frequently should be thrown on the incompetent administrator. We do not condemn opium when an overdose has been prescribed, nor assert that had choral been used the patient would now be living; neither do we cry out against the general use of the drug.

I am certain THE LANCET would not approve of a law coercing a surgeon to use an anæsthetic other than that which commended itself to him as the most suitable; neither would it acquiesce in the condemnation of a surgeon by a coroner's jury who might arrogate to itself the right of deciding on the relative merits of ether and chloroform. I believe THE LANCET would in no uncertain tone advocate the surgeon's right to select his anæsthetic untrammelled by legislative interference, and undeterred by coroner's juries; but once let the prejudice get hold of the public, and your demand for justice for the profession will fall on the ears of those deafened by prejudice both to reason and argument.

I have had personal experience of ether, chloroform, and the A.C.E. mixture, and I prefer chloroform, and I appeal to your sense of justice not to raise a prejudice against an anæsthetic which I consider best for my patients, and the one with the use of which I operate with the least anxiety. Teach the public that chloroform is a dangerous anæsthetic, and you make it so, by producing a dread of it in the patient's mind. Suppose chloroform driven from the field by prejudice, what anæsthetic will replace it for operations on children, in midwifery, patients suffering from renal and pulmonary and asthmatic troubles, and in those suffering from arterial degeneration?—in all of which cases Dr. Dudley Wilmot Buxton, anæsthetist in the University College Hospital, author of "Anæsthetics, their Uses and Administration," published this autumn, considers ether unsuitable.

I fully agree that it is a necessity to teach students to administer anæsthetics, and I believe, if they are properly taught, the mortality from chloroform anæsthesia will become almost *nil*. I do not advocate the indiscriminate use of chloroform or any other therapeutic agent, but I protest against the unqualified condemnation of so valuable and, I believe, so safe an anæsthetic.

I am, Sirs, yours truly,

Lower Gardiner-street, Dublin, Oct. 6th, 1888. GEORGE FOY.

*** Our correspondent is perfectly right when he says we should deprecate any legislation which dictated to a surgeon what anæsthetic he should employ. Every surgeon ought to be a fit judge of the matter, and should, we unhesitatingly assert, select ether for his routine anæsthetic, falling back upon the A. C. E., or some mixture containing chloroform when ether is contra-indicated. We cannot create a prejudice against chloroform, for that agent has already abundantly prejudiced most persons by its dangers. Education in anæsthetics will do much to lessen the death-rate, but, as we pointed out, chloroform deaths have occurred in the hands of the most expert—e.g., Snow, Clover, &c.,—and in cases where no question of overdosing could have arisen. Mr. Foy says: "We do not condemn opium when an overdose is prescribed"; but, we may indicate, we *do* condemn opium in forms of renal disease, and avoid its use. The moral points itself: let chloroform be condemned in all cases where the consensus of experience has shown that a safer anæsthetic can be given.—ED. L.

DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—Anent the recently and oft-repeated statement of the "safety of chloroform as an anæsthetic," I have the misfortune to place on record an additional fatal case, and this after an experience of nearly twenty years of hospital and general practice and an attendance at several thousand administrations.

The particulars of the case are as follows. The patient, a youth of fifteen years, the subject of phimosis, and on whom circumcision was about to be performed, was, to all appearances, in good health. The stethoscope revealing no contra-indication to the administration of chloroform, the patient having been carefully prepared for the operation, and there being at hand a hypodermic syringe charged with ether and also a bottle containing nitrite of amyl, the anæsthetic was commenced on a Skinner's inhaler. The administration proceeded satisfactorily for fully fourteen minutes, two drachms of chloroform having been used, when, the patient slowly showing signs of anæsthesia, I substituted the A.C.E. mixture; my reason for so doing was that I did not perceive any increase in the pulse. The administration of this mixture for five minutes (nineteen minutes in all) sufficed to ensure sufficient anæsthesia for the commencement of the operation, and, to my surprise, on the first touch of the knife the patient exhibited what I thought were signs of pain—viz., raising both his hands as if about to interfere with the operator. Having taken the conjunctiva as my test, and not wishing to push the anæsthetic before assuring myself of its absolute necessity, I again resorted to that test, to find that it was still anæsthetic, and that the pupil was dilating to an extraordinary extent. The face during this short space of time became congested, and the upper extremities were in a state of clonic spasm, of little amplitude (more after

the character of a severe tremor), and highly suggestive of an epileptic seizure. This state of affairs continued probably not more than fifteen seconds, to be succeeded by complete loss of pulse and respiration, with pallor of face. Now up to this very time the pulse and respiration gave not the slightest indication for anxiety, and as corroborative evidence of the condition of the circulation the operator had to deal with a spouting artery. I must mention that the cutting part of the operation was completed coetaneously with the occurrence of the urgent symptoms—fifteen seconds' duration. The subcutaneous injection of ether (already at hand), the exhibition of nitrite of amyl, cold affusion, artificial respiration, and the galvanic battery availed nothing. It was noticed during the time artificial respiration was employed that the pupils would slowly contract, and this appeared more perceptible when the nitrite of amyl was used. There were in all some five or six of these pupillary contractions, but at no period was there any return of the apex beat. In conclusion, I may say that had I not been carefully noticing the condition of the pupil I should have had no warning from either pulse or respiration.

I am, Sirs, yours faithfully,

Bolton, Oct. 9th, 1888. ROBERT PATRICK, M.D.

WORK IN ASYLUM BOARD HOSPITALS.

To the Editors of THE LANCET.

SIRS,—In your leading article of last week on the work of the Asylums Board, in referring to my report, you make the criticism that "we are surprised to find him say that a weekly examination of the urine in ordinary scarlet fever cases is regarded as sufficient." Permit me to point out that this conclusion, and the criticism based upon it, are not warranted by the words of my report; for I expressly state in the context of Table A that "it has been the invariable custom to examine every patient's urine at least once a week, and in special cases more often than this."

I am, Sirs, yours faithfully,

Western Hospital, Fulham, Oct. 17th, 1888. R. D. R. SWEETING.

THE ALPINE CLIMATE IN PHTHISIS.

To the Editors of THE LANCET.

SIRS,—Will you allow me space for a few remarks on Mr. Lowe's article in a recent number of THE LANCET on the Climate of Davos in Phthisis?

Mr. Lowe may consider himself a fortunate man, and it is not suprising that he rejoices in, and wishes to impress others with, the means by which he regained his health. He, however, seems to imagine that, because Davos suited him, therefore it must suit everyone else in a similar condition, which is very far from being the case even after eliminating those cases which are manifestly unfitted for the climate. Now I also can speak from experience, having spent nearly a year in Davos and in the Engadine, and I should, indeed, have stayed longer if the climate had not been *killing* instead of curing me. I do not, therefore, speak without adequate experience of the climate, as he charges Drs. Quain and Pollock of doing, and I unhesitatingly affirm that there are numerous cases even in an early stage to whom it proves harmful instead of beneficial, and that, if this is even suspected, such patients should not endeavour to stay there with the hope of its ultimately suiting them, as they are only too frequently encouraged to do, with most unfortunate results. If it is the intense cold which the constitution of the patient is unable to withstand rather than the altitude (and as it is the latter which is the important factor in curing the disease, as is proved by equally good cures being obtained in high altitudes in warm climates, and by the absence of phthisis even in large towns if situated at a high altitude—e.g., the town of Mexico), it would be far more judicious for the patient to descend at once to a warmer climate—e.g., the Riviera; and then to again try Davos or the Engadine in summer. I myself went there during the summer in an early stage of the disease, and also felt some of the benefit Mr. Lowe mentions he obtained, my temperature lessening, my appetite returning, and so on; in fact, I progressed very satisfactorily until the cold weather came, which was to effect the complete cure, instead of which it immediately brought on complications which did me more harm than any benefit I otherwise obtained. Though I was as careful as I possibly could be, I got four attacks of pleurisy and one attack of congestion of the lung, and finally profuse and persistent albuminuria. I know several cases in which this latter effect has been produced, and an eminent London physician has informed me he has seen several cases in which albuminuria has apparently been produced by a winter's residence at Davos.

I am, Sirs, yours truly,

Madeira, Oct. 10th, 1888. H. COUPLAND TAYLOR, M.D.

"GROUPED COMEDONES."

To the Editors of THE LANCET.

SIRS,—On reading Dr. Thin's description of the above subject, it occurs to me that a short note of two cases I have lately seen would be interesting. On Saturday last two boys, brothers, aged about ten and eight, came to my out-patient room at the Sussex County Hospital, saying that they had ringworm. Each proved to have a group of comedones on the forehead: on the right side in the elder boy, on the left in the younger. Both were circular patches, and one was a perfect ring with clear centre. The coincidence struck me as curious.

I am, Sirs, yours faithfully,

Brighton, Oct. 16th, 1888. T. JENNER VERRALL.

MANCHESTER.

(From our own Correspondent.)

OWENS COLLEGE.

THE College has now got to work again in all its branches. The medical department was, as already noted in your columns, opened by an inaugural address by Dr. Ross on the 2nd inst., which was marked by a depth of thought and philosophical speculation which would not have been out of place either in subject or treatment at the Church Congress which commenced its sittings the same week in this city. In passing, it may be noted that the said Congress was one of the largest and most successful hitherto held, and some of the subjects under discussion, notably that on cremation, had a special interest for members of the medical profession. Principal Greenwood, speaking at the introductory lecture to the department for women in the College, stated that eight ladies had passed the preliminary or matriculation, two the intermediate B.A., and four the final B.A. examinations during the past year. The winter session of the evening classes was opened last night by a lecture from Mr. Tait, assistant professor in history. An important announcement was made that in the forthcoming session not only would the chemical laboratory be open for the use of evening students, but also the new engineering, biological, and physical laboratories, as well as the library—a boon which will undoubtedly be appreciated by those whose studies are perforce carried on when their ordinary day's work is over. Professor Hare, the newly-elected professor to the chair of surgery, was accorded a very favourable reception, considering what strong feeling was exhibited by the students at the time of his appointment. He is an able lecturer, and bids fair to become a popular one here. Dr. Paterson, before leaving Manchester to take up his duties as professor of anatomy at Dundee, was publicly entertained by numerous friends as a mark of their esteem during the five years he has been demonstrator at the College. At the same time that Dr. Paterson goes to Dundee another old Manchester student leaves that University to go to Aberdeen; Dr. Carnelly, who received his training under Sir Henry Roscoe, having been recently appointed Professor of Chemistry to the latter University. It almost seems that the Whitworth munificence is without end. It is but a week or two since that details were given in this column of charitable bequests to the amount of nearly £40,000; and at the late meeting of the court of governors it was announced that £25,000, in addition to that already given to the College, had been received from the Whitworth legatees towards the building fund; and, still further, an offer was made to the College of a valuable site for a new hospital, with £35,000 for building the same and an endow-

ment towards the necessary funds for maintaining it of £1000 per annum. As you have already commented on this gift, I need only remark here that to the College medical school it is a matter of the first importance; the proximity of the new hospital to the College will be appreciated by every medical student; by means of it the College will be able to confer upon its professors and teachers of medicine and surgery important hospital appointments, so that the theory and practice of teaching shall go hand in hand, and we shall not again be troubled with the undesirable spectacle of ill feeling and friction between the College authorities and those having the control of the hospital wards, where these students must obtain their practical bedside instruction. In every way the importance to the future of the Manchester School of Medicine of this proposal can scarcely be over-estimated.

MANCHESTER AND SALFORD ONE CITY.

The agitation which for some months has been in progress, and which has the support of a large number of influential gentlemen, for the amalgamation of the neighbouring borough of Salford with Manchester proper, has advanced a stage. The committee appointed in May last presented their report yesterday at a public meeting, and it was decided that, in all respects, it was desirable that the union of the two municipalities should be brought about, and steps are to be taken to induce the respective corporations to obtain powers to amalgamate. Possibly an important medical question will now stand in abeyance for a time—namely, the provision of a new fever hospital for Salford. At the last meeting of the Salford Town Council another site was proposed for this, and a resolution was passed authorising the purchase of a site of thirteen acres at £1000 per acre; but as there is considerable opposition to the scheme we shall probably hear more of it before being carried into effect. If the two corporations become one, there is but little doubt that all fever patients will be sent to Monsall Hospital, and, still further, that the question of the transfer of this hospital from the infirmary to the proper health authorities of the district would then doubtless soon come to the front.

ROYAL INFIRMARY.

The election for the post of assistant physician to the infirmary, to fill the vacancy caused by the promotion of Dr. Ross, resulted in the appointment of Dr. Harris, the youngest of the six candidates. Dr. Harris is an old Manchester student, who, after a very successful career as a student here, continued his studies for some time afterwards in Germany. For upwards of three years he has held the post of pathologist to the infirmary, and is also assistant physician to the Consumption Hospital.

Oct. 16th, 1888.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE AND GATESHEAD.

THE winter classes are now in full operation in the new building of the University of Durham College of Medicine. I believe Dr. Oliver had the pleasure of giving the first lecture in it. The number of new entries for the present session is as follows: thirty-four for the full course, thirty-three for the year of residence required for the degrees in medicine, and one for the dental course, making in all sixty-eight.—I hear that the amount subscribed for the Luke Armstrong Memorial approaches £600.—The report of the medical officer of health for the last fortnight shows that there is still a prevalence of scarlet fever in Newcastle, thirty-seven cases having been notified to him by practitioners. In reference to the last outbreak of scarlet fever in the Jesmond district, several of the dairymen suffered much loss through having their milk destroyed, and they have made an application to the Town Council for compensation. It is to be hoped that this will be favourably considered, for it would much help the suppression of an epidemic diffused by milk if the dairymen knew they would suffer no pecuniary loss by reporting and stopping the supply. I believe that there is a good deal of scarlet fever now existing on the Gateshead side of the Tyne, but as there is no notification in any form existing there it is difficult to get at the figures. The Gateshead practitioners are believed to be unfavourable to a notification Act, at least to one that would leave the onus of reporting to them.—I regret to notice the death of an old and respected practitioner, Mr. Robert Davis, of Wrekington House, Gateshead, on the 8th of this month, in his sixty-fourth year. Mr. Davis was an M.R.C.S. and L.S.A. He was at one time deputy coroner, surgeon to the Gateshead Dispensary, and medical officer for the south district of the Gateshead Union. Mr. Davis had rendered signal service during the cholera epidemic at Gateshead, and was himself prostrated by the disease twice. He had a very extensive field for practice, but he once told me that his father had the practice before him at a time when he was the only surgeon between Gateshead and Durham city. Mr. Davis had suffered for some time from bulbar paralysis, for which he was attended by Dr. Philipson and his own sons, two of whom are in the profession. He has also left a widow and a large family of sons and daughters. His funeral took place on the 11th, and was the occasion of the expression of much esteem for his memory by friends far and near.

STOCKTON.

At a meeting of the Stockton Hospital Committee, held last week, the question of the extension of the hospital was considered. It is thought that, with the great increase of men at work now in the town, the present accommodation will very soon fall short of its requirements.

AMBULANCE WORK IN THE NORTH.

Surgeon-Major Hutton has been at work in the north for some time. Last week he addressed a meeting at the extensive colliery works of Ashington, near Morpeth, and explained the history and objects of the St. John Ambulance Association, and the benefits to everyone from understanding a few simple rules. The lecture was very interesting, and resulted in the formation of a class of sixty men.

Newcastle-on-Tyne, Oct. 17th.

EDINBURGH.

(From our own Correspondent.)

OPENING OF THE WINTER SESSION.

THIS year the medical classes in the University have met nearly a fortnight earlier than usual. As the classes in the Faculty of Arts will not be opened until the 24th inst., Sir William Muir does not until then give his Principal's address, so that the work in the various classes has got into full swing on the first day of the session. In only a few of the classes was there any regular introductory address given, and where the general rule was departed from the lecturers so arranged their matter that it should have some special bearing on the subject of the course. There are no changes in the professorial staff this year, as, fortunately, there is no obituary record.

THE EXTRA-MURAL MEDICAL SCHOOL.

In the Extra-mural School there are several young recruits to the body of lecturers. Dr. Alexander James, who last year retired from the lectureship on Physiology on his appointment to the infirmary, now lectures on Practice of Physic, Dr. C. Watson MacGillivray lectures on Surgery at Surgeons' Hall, and Dr. Hodsdon has commenced a course of lectures on Surgery at Minto House. Both these last-named gentlemen made use of the occasion to give special addresses to their students and the friends and colleagues collected to hear them. Dr. MacGillivray spoke of the development of the teaching in the Surgeons' Hall, referring especially to the new dissecting rooms and laboratories connected with the departments of Anatomy, Physiology, Pathology, &c. Many celebrated men, he said, had carried on the teaching within the College walls, and some, though few, still continued with them. Medical science, like their colleagues, did not stand still; consequently the conditions of student life were now very different from what they were when he was a student. With all the alterations and additions to the subjects which they had to study, there was no corresponding rearrangement of the curriculum. The only way in which the problem of how to get through their work could

be even partially solved was to give as much time as possible to practical work, the knowledge resulting from which, unlike that derived from books, was always available. Dr. Hodsdon devoted his first lecture to the causes, results, and surgical treatment of empyema, basing much of his argument on the results of experiments and observations made by himself.

REPRESENTATION OF THE EDINBURGH AND ST. ANDREWS UNIVERSITIES.

It is said that at the meeting of the Liberal Association of the Edinburgh and St. Andrews Universities, held this afternoon, a committee was appointed to approach Mr. Erichsen to see whether he would again contest the seat, should he be desired to do so by the Liberal Association. In the case of his being unwilling to place himself at the disposal of the Association, the committee are empowered to look out for a Liberal candidate whose high academic distinction and knowledge of university work would render him acceptable to the majority of the Liberal electors of the constituency. It appears that imperial politics were freely discussed, and that a good deal of party feeling was introduced into the speeches that preceded the final settlement. It is to be feared that the fight will, in this instance, resolve itself into one on almost strictly party lines, and that university interests will be lost sight of entirely unless each candidate tries to outbid the other in making his appeal for support. It is quite possible, however, that there will be no fight at all, and that the new Solicitor-General will be allowed to walk over the course. It is said that Mr. Darling has given promises of most cordial support to the Universities of Scotland Bill, and to all measures which may conduce to effective university reform.

Edinburgh, Oct. 16th.

DUBLIN.

(From our own Correspondent.)

COLLEGE OF PHYSICIANS IN IRELAND.

As previously intimated by me a considerable time since, the Fellows will, at their annual meeting on Thursday, the 18th inst., elect as their President Dr. Lombe Atthill, ex-Master of the Rotundo Lying-in Hospital, and formerly Obstetric Physician to the Adelaide Hospital. Dr. Atthill succeeds Dr. Little, who has served as President for the past two years. On the 18th inst. (St. Luke's Day) there will also take place the election of the various examiners, office-bearers, and the representative of the College on the General Medical Council.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

I am informed that Mr. Robert H. Moore, a well-known dentist in Dublin, is a candidate for the vice-presidency of the College next year. Mr. H. Gray Croly's name has been before the electors for several months, and it is rather a surprise to learn, when all opposition had ceased to be expected, that he will be opposed. I believe Mr. Croly, if a contest takes place, will be successful by a very large majority; but, all the same, it must be disagreeable to him to be subjected to a contest when it was generally believed that he would be returned unopposed. These contests for the vice-presidency of the College have of late years become altogether too frequent; they cause a good deal of unpleasantness, and for many reasons ought to be discouraged. I may state, and I do it with the fullest knowledge, that Mr. Croly is a good surgeon, a brilliant operator, and a gentleman who, with his extensive practice, is admirably fitted for the post he seeks. Also, I may add that it is rather unusual for anyone not a member of the Council of the College to become a candidate for the vice-presidency, which naturally leads to the presidency, the highest honour the Fellows can confer on one of their number.

CLOSING OF ST. AUDOEN'S GRAVEYARD.

Mr. Robinson, Local Government Board inspector, held an inquiry recently with reference to the closing of this graveyard, as it is considered that any further interments would be productive of danger to the public health. The graveyard, besides being situated in the midst of a populous neighbourhood in Dublin, is filled with human remains, for it appears from the records that it is of great antiquity, and that 30,000 persons have been interred in it. There has been no burial for the past five years, and, as there is no one to claim the right of interring in the graveyard, most likely it will be closed.

POISONING BY CYANIDE OF POTASSIUM.

Quartermaster Sergeant Huggins committed suicide on Saturday last at Linenhall Barracks, in this city, by swallowing a quantity of cyanide of potassium. The amount administered was about half an ounce, and, as might have been expected, death took place very shortly after the poison had been taken.

DANGEROUS DUBLIN.

The insecure condition of a large number of houses in this city has attracted attention of late, which has been increased by the recent fall of a house in Cumberland-street, attended with loss of life. The Lord Mayor has very properly requested the borough surveyor to prepare a report on the condition of dwelling-houses in Dublin, and on any measures required, either by amendment of the law or otherwise, to provide for the safety of life.

Dublin, Oct. 16th.

PARIS.

(From our own Correspondent.)

THE URINE AFTER INTERMITTENT FEVER.

To the communication of Dr. Mossé on the above subject, reported in THE LANCET of last week, may be added a note from Dr. Sorel, an army surgeon at Algiers, in which he stated that Professor Verneuil was evidently deceived by a simple coincidence. Dr. Sorel's conclusions were, therefore, in accord with those of Dr. Mossé. As a rejoinder, Professor Verneuil remarked that the results obtained by these two physicians in their practice should not be generalised. Professor Verneuil had on several occasions an opportunity of observing *employés* of the Panama Canal, who were sent back to France on account of intermittent fever, and who were at the same time glycosuric. On the other hand, he was informed by Dr. Charles Blanc, a practitioner of Bombay, that palludism was very frequently followed by diabetes. He could not account for this difference of results in different countries, but observed that in hot countries, where palludism is endemic, and where hepatism is also endemic, palludal glycosuria or oxaluria would also be met with. It is possibly a question of medical geography, the complications varying a good deal according to the climate, and cannot be resolved till further researches from different parts of the globe are carried out.

NEPHRECTOMY.

Dr. Terrillon reported a case of abdominal nephrectomy that he had performed on a woman aged thirty for a displaced kidney, which was discovered in the right flank, and was diagnosed as being suppurating and tuberculous. The operation, a very delicate and difficult one, was performed in the month of January last. An incision was made extending from the borders of the ribs to the crest of the ilium. The peritoneum once opened, the displaced kidney was easily found. The separation of the tissue of the kidney from its capsule was found difficult; the parenchyma had to be removed piecemeal, and it was necessary to leave a small stump at the bottom of the shell of the kidney. In the month of February the patient had already left her bed. She is now considered completely cured, and has increased in weight by thirty pounds. No trace of tuberculosis could be discovered on her, and yet Koch's bacilli were found in the fragments of the extirpated kidney. It was therefore concluded that it was a case of localised tuberculosis.

CRANIAL SURGERY.

Some years ago surgeons were in accord not to intervene in cases of intracranial abscess. At the present day, thanks to surgical antiseptics, the intervention of the operator is accepted, as the operation is no longer considered dangerous, and it may be the means of saving the life of the patient. M. Chauvel, Professor of Surgery at

Val-de-Grâce, in an interesting communication to the Academy, established that symptoms often permit the surgeon to suspect the existence of an abscess, ordinarily situated in the neighbourhood of the petrous portion of the temporal bone, in the temporo-sphenoidal lobe. In this case, if the excision of the tympanum and the antiseptic cleansing of the middle ear, combined with the trephining of the mastoid apophysis, do not effect amelioration, the opening of the skull is advised. The skull should be freely opened, the dura mater incised, and a trocar plunged into the cerebral substance, indicating the presence of pus, the seat of the abscess, and serving as a guide to the bistoury.

As an example of the utility of the operation of trephining, the *Montpellier Médical* relates the case of a young man, aged twenty-eight years, who was found in a railway van with a large wound in the left parietal region. There was fracture with depression of the skull, hemiplegia, no aphasia, and the intelligence sufficiently clear. Raising and ablation of the fragments were practised by Dr. Boye. This was followed by a cure, and the patient, who was employed on the railway, was soon able to return to his work.

ACTION OF ANTIPYRIN ON THE TEETH.

Among the inconveniences ascribed to the use of antipyrin, Dr. Galippe has brought to notice that in several cases in which the drug was administered internally the teeth were blackened by it. Dr. Galippe, who devotes himself to dentistry, could offer no scientific explanation of the manner in which antipyrin acts on the teeth; he, however, found that the teeth blacken the more readily when they have lost their enamel. But this inconvenience is only transitory, and may be removed by simply rubbing the teeth with oxygenated water.

In THE LANCET of Aug. 18th, the death of Dr. E. Decaisne was announced. I have now to report the death of his son, Dr. Gaston Decaisne, aged thirty-six years, which took place on the 4th inst. Deceased was formerly chef de clinique, and promised to become a distinguished physician.

Paris, October 16th.

Obituary.

G. H. BARFOOT, M.D.

WE regret to record the death, on the 9th inst., of Dr. G. H. Barfoot of Birkenhead. The deceased, who was born at Leicester in 1851, received his professional education at University College, and in 1872 took the M.B. degree with honours at the University of London. After this, being in delicate health, he went for a year's voyage to China. In 1873 he was appointed house physician at the Leeds General Infirmary; and in 1874, when only twenty-three years of age, he obtained the degree of M.D. Lond., in the examination for which he was again placed in the honours division. After residing for a year or two at Shrewsbury, Dr. Barfoot removed to Birkenhead about ten years ago, and entered into partnership with Dr. Walker, a connexion which continued to the time of his death. He soon made himself appreciated by a large circle of friends and patients, and was appointed one of the acting medical officers of the Wirral Children's Hospital. Always of a somewhat delicate constitution, he suffered latterly from anæmia, and was compelled this summer to be away for three months at Llandudno and Douglas. On his return to work, however, his illness gradually assumed a serious aspect, and he died somewhat suddenly.

LEICESTER INFIRMARY.—Sir A. G. Hazlerigg, Bart., presided at the quarterly meeting of the governors, held on the 9th inst. The report of the Finance Committee at the close of the past quarter showed respectively on the medical library account, the fever house account, and the chaplain's fund account a total balance in hand of £215 8*s.* 1*d.*, but on the infirmary proper account there was a serious deficiency at the end of the quarter. The balance due to the treasurer was £3392 18*s.* 1*d.* An unusually large number of patients at the fever house had involved at least £1000 more than the average expenditure.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following candidates passed the Second Examination at a meeting of the Board of Examiners on the 11th inst.:—

Anatomy and Physiology.—George L. Bell, of Melbourne University, and Framroz S. Davar, of Grant Medical College and Mr. Cooke's School of Anatomy and Physiology.

Anatomy only.—Charles K. Crowther, of St. Bartholomew's Hospital; Henry P. Job, of University College; Rupert James, Stuart A. Ord-Mackenzie, of University College and Mr. Cooke's School; John Wells, Edgar S. Sanderson, Henry Corby, and Henry W. West, of London Hospital; Thomas H. English, Patrick Quaid Ambrose, and Lennox Wainwright, of London Hospital and Mr. Cooke's School; Henry G. Biddle, Gerald Sichel, and George W. B. Featherstone, of Guy's Hospital; L. Daniel Heather, of King's College; Robert R. Hatherell, Sydney F. Wright, and Percy W. Campbell, of St. Thomas's Hospital.

Physiology only.—Harry H. Brind and Arthur A. Fennings, of St. Mary's Hospital; Edward Knox Goodwin, Leonard J. Minter, and George F. Read, of King's College; Robert Henry and Edwin C. Walter, of St. Thomas's Hospital; Edward Cornish, Edward H. Greaves, Edward W. Sharman, and Wilfrid E. Sturges-Jones, of Guy's Hospital; Albert H. Beardmore, of Sheffield Medical School; Frederick Temple Morris, of University College; Herbert Sisson, of London Hospital; Edward D. Madge, of Middlesex Hospital; Julius Abrines, John B. Anderson, James Cooper, Willoughby F. Cotton, Edward A. R. Covey, and Fredk. E. Withers, of St. Bartholomew's Hospital; Walter Wright, of St. Bartholomew's and Mr. Cooke's School.

The following passed on the 12th inst.:—

Physiology only.—George Kendrick, of Queen's College, Birmingham; William R. Ashworth, Thos. C. Hughes, of Westminster Hospital; Charles B. Braithwaite, of Guy's Hospital; Thomas H. Adams and Robert C. Middlemist, of London Hospital; Felix Turner, of University College; Harry B. Williams, of St. Thomas's Hospital; Wm. K. Brewer and Percy A. Longhurst, of Charing-cross Hospital.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.—The following has been admitted to the Licences in Medicine and Midwifery of the College:—

John Francis Greene.

The undermentioned have been admitted Members:—

Thomas Canton, Kells.
William George Hill, Fleet Surg. R.N. (retired), Fermoy.
Daniel O'Sullivan, Station Hospital, Fulford, York.
Walter Henry Ryan, Bucks.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society:—

Alcock, Richard, Owens College, Manchester.
Beale, Peyton Todd Bowman, King's College Hospital.
Foster, John Edward, Queen's College, Birmingham.
Moles, Frederick Parker, Owens College, Manchester.
Slyman, William Betenson, St. Bartholomew's Hospital.
Westwood, John, Queen's College, Birmingham.
Winn, Thomas Cromwell, London Hospital.

The following passed in Surgery:—

Morton, James Douglas, St. Mary's Hospital.
Neville, Evan James, King's College Hospital.

Passed in Medicine, Forensic Medicine, and Midwifery:—

Ellis, Henry Havelock, St. Thomas's Hospital.
Fielder, Sidney, Glas. Univ. and St. Thomas's Hospital.

Passed in Medicine and Forensic Medicine:—

Hurst, Walter, Owens College, Manchester.

Passed in Medicine and Midwifery:—

Hues, Frank, Queen's College, Birmingham.

AN inquest was held on the 12th inst. on the body of Dr. William Logan of Willington, who expired from strychnine poisoning, taken in mistake for morphia.

AN inquest was recently held at Paddington on the body of a man whose death had been caused by swallowing false teeth.

THE annual meeting of the subscribers to the Birmingham Dental Hospital was held on the 5th inst., when satisfactory financial and general reports were presented and adopted.

UNIVERSITY COLLEGE, LONDON.—The undermentioned Prizes and Scholarships have been awarded:—Medical Entrance Exhibitions: F. W. Wesley, £100; C. G. Spencer, £60; B. L. Abrahams, £40. Andrews Entrance Scholarships of £30 each: Languages, C. Conroy; Science, S. F. Kirby. Gilchrist Engineering Entrance Scholarship of £35 per annum for two years: P. T. J. Estler. Engineering Matriculation Certificate: S. A. Lang.

GREAT NORTHERN CENTRAL HOSPITAL, HOLLOWAY-ROAD.—This institution has benefited to the amount of £114 by the late athletic sports fête held at Tufnell Park grounds, promoted on its behalf by the tradesmen and police (Y division) of Holloway.

CRICKLEWELL DISPENSARY.—The subscribers, at their annual meeting, held on the 13th inst., increased the salary of the medical officer, Mr. Philip E. Hill, quite spontaneously and unanimously, from £35 to £40 per annum.

NEW HOSPITAL, DOVER.—A new hospital is to be erected in this town, adjacent to the old institution, which was opened as a memorial of the general thanksgiving in 1854. The estimated cost is upwards of £5000.

OPEN SPACES.—The Hackney District Board of Works have resolved, by a large majority, to contribute £15,000 towards the purchase of Clissold Park, and to borrow that sum from the central authority—£10,000 to be charged upon the parish of Stoke Newington, and £5000 on the parish of Hackney.

REFERRING to the notice in our last week's issue of a Doll Show to be held in aid of the Hospital for Sick Children, Great Ormond-street, we understand the Princess Frederica has altered the date for the distribution of prizes, and the Exhibition has consequently been postponed to the 9th and 10th prox.

THE NATIONAL APPLE AND PEAR CONFERENCE, arranged for the display of collections and specimens and the discussion of various questions pertaining to the production, distribution, and improvement of hardy fruits, which opened on the 16th inst. in the gardens of the Royal Horticultural Society, Chiswick, will close on the 20th inst.

NORTH-WESTERN POOR-LAW CONFERENCE.—The proceedings of the fourteenth annual conference in connexion with the north-western districts (Lancashire and Cheshire) were concluded at Chester on the 13th inst. A paper was read by Dr. Rhodes on the Laws relating to Pauper Lunatics, which provoked a long and interesting discussion. It was decided to hold next year's conference at Preston.

MADAME PATTI AND THE HOSPITALS.—Madame Patti gave her fourth concert at Swansea on the 11th inst., in aid of the Swansea Hospital and other charities. The proceeds amounted to about £1000. Several presentations were made to her, and the French Consul presented her with the decoration of an Officer of the Académie des Beaux-Arts, in recognition of her assistance to the French Hospital in London.

SWEATING IN HOLLAND.—From the evidence as to the condition of the workers in Holland, which has recently been taken by a committee of the Dutch Chamber, it appears that in that country the average factory day is from thirteen to fourteen hours, while the operatives often work eighteen, twenty-four, and thirty-six hours at a stretch. The Commission reports that infant mortality is increasing, technical improvements are neglected, and the inventiveness of workmen is destroyed.

NEW HOSPITAL AT SUNNYSIDE ASYLUM, MONTROSE.—The foundation stone of this new hospital was laid on the 10th inst., by Provost Scott of Montrose, chairman of the Board of Managers. In consequence of the continually increasing demands upon the Montrose Asylum, one of the oldest in the country, the managers last year decided to build a new hospital beside the main building, involving an outlay of £15,000 exclusive of furniture &c. The new building will accommodate 100 patients.

BEQUESTS AND DONATIONS TO HOSPITALS.—The honorary treasurer of the Bootle Borough Hospital has recently received £163 17*s.* 6*d.* from the *employés* of the White Star Steamship Company.—The honorary secretary of the Newbury District Hospital has received £100 as a donation from a "Lady" to the funds of the hospital, "in memory of Thomas and Mary Palmer."—The treasurer of the Guest Hospital, Dudley, has received £1000 from Mrs. Caroline E. Hudson, of Oxford, as a gift to the hospital in memory of her father.—Mr. Wm. McNamara, late of Cork, has bequeathed £50 to Mercy Hospital, and a similar amount to St. Patrick's Hospital, Cork.—Mr. Gervas Taylor has given £50 to the Adelaide Hospital, Dublin.

SUPERANNUATION.—An annuity, by way of superannuation of £500, has been granted to Dr. Samuel Mitchell, lately medical superintendent at Wadsley Lunatic Asylum, Sheffield, who retires from ill-health. He had been an officer of the asylum for sixteen years.

THE PUBLIC SANITARY INSPECTORS' ASSOCIATION. On the 12th inst., the members of the North-Western District of the Association visited Warrington, and made inquiries into the sanitary arrangements of the borough. The visitors were received at the Town Hall by Alderman Burgess (the chairman of the Sanitary Committee of the Warrington Town Council) and Mr. T. Longdin, the borough surveyor. Mr. Longdin briefly explained the system adopted in Warrington for dealing with the refuse of the town. Subsequently inspections were made of various places of sanitary interest, and the opinion was expressed that the example set in Warrington was one which might be extended to almost every town in the country, and that they, the visitors, had that day witnessed the best means of dealing with excreta.

THE VOLUNTEER MEDICAL STAFF CORPS.—When the Volunteer Medical Staff Corps was founded in April, 1885, it was placed under the charge of Mr. Cantlie as commandant, and Surgeon J. Lees Hall, A.M.D., was appointed adjutant. The strength of the corps was limited at that time to 400 men, of which number three companies were composed of students of the different London hospitals and one of men who were not intending to enter the medical profession. Subsequently the movement was extended, and companies were successively formed in Edinburgh, Woolwich, Maidstone, Manchester, Leeds, &c. This year the Government has authorised the formation of another company in London, the strength being thus raised to 500. It is further proposed to extend the movement gradually in other cities and towns where large bodies of Volunteers are. It is not essential that the privates should be possessed of any medical qualification, but the officers must all be duly qualified medical men. The formation of this corps was a new departure in the Volunteer movement, and, like other new organisations, had numerous difficulties to contend with. The resignation of Mr. James Cantlie was a loss severely felt, and we hear that the Adjutant, Surgeon J. Lees Hall, whose tenure of office has expired, leaves for Ceylon in a few days. There can be little doubt that the success which has been obtained has been largely due to the untiring energy, tact, and skilful services of this deservedly popular officer, whose departure will be much regretted.

PRESENTATIONS.—On the 8th inst. the Bond of Brotherhood Club, Street, Somerset, met for the purpose of bidding farewell and making a presentation to their medical officer, Mr. J. J. Kerr. There was a large number of members and friends present. Mr. Pursey, the president, presided, and expressed the regret of the members that Mr. Kerr had decided on leaving the town, where, during his residence, he had won the esteem and good feeling of all with whom he had come in contact. Several of those present also spoke to this feeling of regret. An address was then presented to Mr. Kerr, which spoke not only of his pleasant and kind manner, but also of his attention to his duties and the confidence the members had felt in his skill. With the address was also handed to the doctor a purse containing a sum of money, subscribed for by over 100 members and friends.—The medical friends of Mr. Henry Burford Norman, F.R.C.S., the president of the South-east Hants District Medical Society, have, on the occasion of his retiring from practice and leaving the neighbourhood, after an honourable and successful career in Southsea covering over a period of thirty years, presented him with a tea and coffee service, in memory of his long residence with them. At the same time a handsome carriage clock was presented for Mrs. Norman.—The ladies of the Ainsdale Class of the St. John Ambulance Association (Birkdale Centre) have presented Dr. Moore with a pair of gold sleeve-links, in recognition of his services.—Dr. Robertson, F.R.C.P., the chairman of the Board of Trustees and Committee of Management of the Devonshire Hospital and Buxton Bath Charity, was presented on the 6th inst., after the usual business of the quarterly meeting, with a portrait of himself (a striking likeness, and which will adorn the walls of the institution), in recognition of his lengthened and very valuable services to the Devonshire Hospital.

PLUMBING.—The corporations of the Hartlepools have been co-operating to promote the system of national registration of plumbers established by the Plumbers' Company. The mayors of both places have just congratulated each other at a public meeting upon the fact that their first co-operation since the incorporation of Hartlepool as a municipal borough should be in a matter of such vital moment to the public health. Dr. Gourley, medical officer of health, who took part in the meeting, said he was sure no one present could fail to recognise the importance of the movement, and he was sure he would have the support of the Health Committee. It could not be denied that in the past no one had given so much work to the doctors as plumbers. Therefore he hoped the present movement would go on and prosper, and that before long every plumber, not only in the Hartlepools but throughout the country, would be registered.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALFORD, H. J., M.D. Lond., M.R.C.S., L.S.A., has been reappointed Medical Officer of Health of Taunton Rural and Union Districts.

ALLEN, WM. E. L., M.B., C.M. Glas., has been appointed House Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

BARBER, PERCIVAL E., B.A. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Public Hospital and Dispensary, Sheffield.

BOYD, A. J., B.A., M.D., T.C.D., has been appointed Medical Officer to the No. 3 District of the Ware Union, vice H. May, M.D., resigned.

BOYD, J. ST. CLAIR, M.D. R. Univ., M.Ch. Irel., has been appointed Assistant Surgeon to the Belfast Hospital for Sick Children.

BROOKS, J. HARLEY, M.B., C.M. Aberd., has been appointed Assistant Medical Officer to the Mile-end Infirmary, School, and Workhouse, Bancroft-road, E.

CLARK, W. W., M.D Edin., M.R.C.S., L.S.A., has been reappointed Officer of Health, Wellingborough District Union.

DAVIES, H. A. B., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of the Newton Abbot District, Newton Abbot Union.

DAWDALL, S., M.R.C.S., L.R.C.P. Lond., has been appointed Clinical Assistant at the Marylebone Infirmary, Notting-hill.

DONALD, JAMES, M.R.C.S., L.S.A., has been appointed Medical Officer of the Ham Common District, Kingston Union.

GREEN, G. SYDNEY, M.R.C.S., L.R.C.P. Lond., and L.S.A., has been appointed House Surgeon to the Loughborough Infirmary and Dispensary.

HANNAH, N., L.R.C.P. Edin., L.R.C.P., L.R.C.S. Glas., has been reappointed Medical Officer of Health, Ashton and Abram Union Districts.

HARDWICKE, E. H., L.R.C.P. &c., has been appointed Medical Officer and Public Vaccinator of No. 4 District of the Risbridge Union, Great Bradley, Newmarket, vice R. Cooper, resigned.

HARRIS, THOMAS, M.D. Lond., M.B., M.R.C.P., M.R.C.S., has been appointed Honorary Assistant Physician to the Royal Infirmary, Manchester, vice Ross.

HELSHAM, HUGH P., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the West District, Bingham Union.

HOSEGOOD, S. P., M.R.C.S., L.R.C.P. Lond., late Clinical Assistant to the Marylebone Infirmary, Notting-hill, has been appointed Junior House Surgeon to the Royal Infirmary, Hull.

HOWE, JOS. D., M.R.C.S., L.S.A., has been appointed Assistant Medical Officer of the Workhouse, Township of Manchester.

HOYLE, J., M.B., C.M. Edin., has been appointed Medical Officer of Barkisland, Yorkshire.

KAY, WALTER SMITH, M.D. Edin., M.R.C.S., has been appointed Medical Superintendent to the South Yorkshire Asylum, Wadsley, near Sheffield, vice Samuel Mitchell, M.D., resigned.

KEITH, ARTHUR, M.B. Aber., has been appointed Assistant Medical Officer to Murray's Royal Asylum, Perth, vice Geo. Findlay, M.B., resigned.

LUCAS, H., M.R.C.S., L.S.A., has been appointed Medical Officer of Health, Huntingdon Union District, vice Redding, resigned.

PARRY, J. W., L.R.C.P., L.M., L.R.C.S. Edin., has been appointed Medical Officer of the Workhouse, Holywell Union.

ROSS, JAMES, L.L.D. Aberd., M.D., M.B., C.M., F.R.C.P. Lond., has been appointed Honorary Physician to the Royal Infirmary, Manchester, vice Morgan, retired.

SINCLAIR, F. H., M.D., R. Univ., M.Ch., L.K.Q.C.P., L.M., L.R.C.S Irel., has been appointed Assistant Physician to the Belfast Hospital for Sick Children.

STANIFORTH, J. W., M.R.C.S., has been appointed Junior House Surgeon to the Public Hospital and Dispensary, Sheffield.

STEIN, C. G., M.B., C.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health, Warsop and Mansfield Woodhouse, Notts.

TENCH, MONTAGUE, M.R.C.S., L.R.C.P., L.S.A., has been appointed House Surgeon to the Middlesex Hospital, Berners-street, W.

TREVELYAN, E. F., M.D. Lond., B.Sc., M.R.C.S., has been appointed Resident Medical Officer and Pathologist to the Leeds General Infirmary, vice C. W. Turner, resigned.

WICKHAM, ONSLOW A., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed a Surgeon to the Holloway and North Islington Dispensary, Highbury-vale Branch, vice Dr. Merces, resigned.

WYNNE, J. D., B.A. Dub., M.B. and B.Ch., has been appointed Assistant House Surgeon to the Public Hospital and Dispensary, Sheffield.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BOOTLE BOROUGH HOSPITAL.—A House Surgeon. Salary £80 per annum, with board and residence in the Hospital.

CHELSEA HOSPITAL FOR WOMEN.—A Pathologist. The appointment, which is honorary, is made for one year.

CHELTENHAM GENERAL HOSPITAL.—Assistant House Surgeon. Salary £40 per annum, with board and apartments.

DENTAL HOSPITAL OF LONDON AND SCHOOL OF DENTAL SURGERY, Leicester-square.—A Lecturer of Mechanical Dentistry.

GENERAL INFIRMARY AT LEEDS.—Resident Obstetric Officer. A House Physician and two House Surgeons. No salary will be given, but board, washing, and lodging provided in the Infirmary.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Physician to Out-patients. Surgeon to Out-patients.

OWENS COLLEGE, MANCHESTER.—Junior Demonstrator in Anatomy Stipend £100 per annum.

SEAMEN'S HOSPITAL SOCIETY (LATE DREADNOUGHT), Greenwich, S.E.—Resident House Physician. Salary £75 per annum, with board, furnished rooms, and attendance. Surgeon for the Dispensary, Well-street, London Docks. A dispenser provided. Salary £63 per annum. Dispenser for Branch at Well-street, London Docks. Salary £40 per annum.

WILTS COUNTY ASYLUM.—Second Assistant Medical Officer. Salary £100 per annum, with board, residence, attendance, and washing.

WREXHAM INFIRMARY AND DISPENSARY.—House Surgeon. Salary £100 per annum, with furnished rooms, gas, coal, and attendance (without board).

Births, Marriages, and Deaths.

BIRTH.

JARDINE.—On the 13th inst., at Lichfield-gardens, Richmond, Surrey the wife of James Jardine, M.B., of a son.

MARRIAGES.

KIRKPATRICK—CHANDLER.—On the 15th inst., at Great Bealings Parish Church, H. Ivers Ingram Kirkpatrick, L.K.Q.C.P.I., son of Wm Kirkpatrick, J.P., The Hermitage, Mohill, county Leitrim, Ireland, to Alice May (Blossom), second daughter of the late Colonel G. Lee Chandler, Royal Artillery.

LAKE—PELLY.—On the 3rd inst., at Yoxford, Suffolk, by the Bishop of New Westminster, assisted by the Rev. A. Pemberton, Vicar of West Stow, Richard Lake, Barnes, to Mildred, third daughter of Justinian Pelly, of Elmsley, Yoxford.

MILNER—MCARTHUR.—On the 27th ult., at Burlingham, St. Andrews, by the Rev. C. C. McArthur, assisted by the Rev. F. Fitch, M.A., Vicar of Cromer, James Milner, M.R.C.S., of Shipdham, Norfolk, to Frances Elizabeth, eldest daughter of the Rev. C. C. McArthur, Rector of Burlingham, Norfolk.

RITCHIE—SOUTHFIELD.—On the 11th inst., at the Roxburgh Hotel, Edinburgh, by the Rev. Wm. Turnbull, Gladsmuir, Daniel Ritchie, M.D., Tranent, to Jane Cunningham Gibson, third daughter of George Gaukroger Southfield, Longniddry.

SYKES—WARE.—On the 10th inst., at the Doncaster Parish Church, William Sykes, F.S.A., M.R.C.S., L.R.C.P., of Mexborough, to Gertrude Wilmot, eldest daughter of the late Canon Ware, Rector of Barnburgh.

SYMPSON—KNIGHT.—On the 10th inst., at St. Paul's Church, Camden-square, by the Rev. F. Wallis, M.A., Fellow and Dean of Caius College, Cambridge, assisted by the Rev. R. H. Leamon, Edward Mansel Sympson, M.A., M.B. Cantab., M.R.C.S., of James-street, Lincoln, son of Thomas Sympson, F.R.C.S., to Florence Mabel, younger daughter of Joseph Knight, Barrister-at-Law, of 27, Camden-square, N.W.

DEATHS.

BACOT.—On the 10th inst., at Seaton, Devon, J. T. W., Bacot, Deputy Inspector-General of Hospitals, A.M.D. (retired), and 39th and 89th Regiments, eldest son of the late John Bacot, Esq., of Portugal-street, Grosvenor-square.

BARFOOT.—On the 9th inst., at his residence, Devonshire-road, Birken-head, George Harry Barfoot, M.D. London, eldest son of William Barfoot, Esq., J.P., aged 37. Interred in Leicester Cemetery, at 12 o'clock, Saturday, the 13th inst.

ELLIOTT.—On the 25th ult., at North-street, Chichester, George Hurlstone Elliott, M.R.C.S., L.S.A., son of the late Robert Elliott, F.R.C.S.E., F.S.A., in his 50th year.

HOSKINS.—On the 12th inst., at York-place, Candie-road, Guernsey, Samuel Elliott Hoskins, M.D., F.R.S., aged 89 years and 8 months. It is requested that no flowers be sent.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths

Medical Diary for the ensuing Week.

Monday, October 22.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Fletcher Beach: On a case of Recovery after Laceration of Brain.—Mr. Marmaduke Sheild: On the Removal of an Aural Exostosis by the Chisel after Incision of the Cartilaginous Meatus.—Dr. Howard: On a New and Only Method of Raising the Epiglottis.

Tuesday, October 23.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
THE PARKES MUSEUM (74A, Margaret-street, Regent-street, W.).—8 P.M. Mr. J. F. J. Sykes: General Powers and Duties of Inspectors of Nuisances; Method of Inspection.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. W. A. Meredith: Remarks on some Points affecting the Mortality of Abdominal Section, with tables of cases.—Mr. Edmund Owen: Arthrectomy, Erasion of Joints.

Wednesday, October 24.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.
HUNTERIAN SOCIETY.—8 P.M. Dr. Stowers: Notes on the Treatment of Diseases of the Skin.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens and Notes of Cases by Dr. F. A. Purcell, Dr. Fancourt Barnes, Mr. Reeves, Mr. Lawson Tait, Dr. Richard Smith, and Dr. Granville Bantock. Council, 8 P.M.

Thursday, October 25.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, ? P.M.

Friday, October 26.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—Dr. H. Handford: Case of Empyema, Loss of Vision, Cerebral Softening.—Dr. Beaufoy Green: Case of Dermoid Cyst of Tongue.—Mr. Hutchinson: Second Report on Persistent "Aptyalism," or Dry-mouth, with an additional case.—Mr. E. H. Fenwick: Case of Encysted Stone.
THE PARKES MUSEUM (74A, Margaret-street, Regent-street, W.).—8 P.M. Mr. J. F. J. Sykes: Nature of Nuisances, including Nuisances the Abatement of which is Difficult.

Saturday, October 27.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 18th, 1888.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Oct. 12	30·07	S.W.	49	47	93	62	45	..	Cloudy
,, 13	29·88	W.	51	47	92	56	47	·02	Cloudy
,, 14	30·19	N.	47	47	82	51	30	..	Hazy
,, 15	30·35	W.	40	37	61	54	34	..	Foggy
,, 16	30·40	W.	43	41	69	56	39	..	Foggy
,, 17	30·31	W.	44	43	67	57	41	..	Foggy
,, 18	30·28	E.	42	41	57	47	40	..	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE QUESTION OF TITLE.

WE think there is no more to be said on the subject. As a mere trade-mark, we cannot admire the title of "doctor" any more than "apothecary." "Medicine man" is not a badge that anybody would like to bear, however proud of his profession. The real thing that one ought to have reason to be proud of is organic relation to universities and a title implying honour derived from them and from their estimate of merit. The universities have themselves to blame that this ground of pride is not always so well based as it should be. They have been so keen to compete with the ordinary licensing boards that they have lowered the value of their own degrees as distinctions. Perhaps they are seeing now somewhat the danger of this course Meantime, there is one title that is highly honourable, and is almost now a distinction among medical men who feel their own strength and rest on their consciousness of being masters of their art—the good old title of "Mister," which some of the best men in the profession find ample for all social and professional purposes. It is certainly infinitely more honourable than any unacademic or unwarranted use of the title of "doctor." And we see many indications that this view is shared by the profession, and by many who think they have a right by courtesy to something more.

Mr. Blancard (Ramsgate).—The paper has not yet appeared in our columns.

RE CORRECTIONS.

To the Editors of THE LANCET.

SIRS,—Will you admit in your valued columns a suggestion *re* corrections?

Take a recent instance. Mr. Harrison Cripps at page 608 refers to an error in a former paper which appeared in "last week's Mirror." Others, like myself, may have desired to make the correction in their copies, and after turning over many leaves have done so at page 620. It is, I too well know, quite customary to allude to former papers in this manner, instead of stating the exact page, which if stated would save many explanatory words, and so save space, and also avoid the loss of time, and not unfrequently of temper, too. If you would advocate the cultivation of the habit of referring to the exact page, you would confer an obligation upon many besides,

Yours truly,

Oct. 10th, 1888. SUGGESTER.

CHINESE MEDICINE.

To the Editors of THE LANCET.

SIRS,—I beg to forward herewith a placard written in Chinese, with a translation done by Mr. C. H. Brewitt Taylor, F.R.A.S., which you may probably find of some interest. I also send some of the pills to which the advertisement refers. The placard was posted up in all the villages in this district during the cholera epidemic of 1883, and the pills were in great demand amongst the natives. I am afraid they had little effect in checking the disease, as the people died in great numbers. I am unable to obtain any information as to the ingredients of which the pills are composed; but from the sensation of numbness left on the tongue after tasting, I am inclined to think they contain aconite. If you think it worth while to examine them, I shall feel much obliged if you will let me know the result of your inquiries. During the cholera epidemic of 1883 the immunity from the disease which the foreign community experienced was very remarkable. The number of deaths amongst the Chinese is variously estimated at from 10,000 to 20,000, and in a community of foreigners numbering between 250 and 300 only two deaths occurred. The victims were both females; and in one case the attack was traced to bad drinking water, and in the other to unsound fruit. There can be little doubt of the fact that the precautions which foreigners take with regard to drinking water account for their freedom from the disease.

I trust that the interest of the curious advertisement will be sufficient excuse for my troubling you with this communication.

I am, Sirs, yours faithfully,

Pagoda Anchorage, China, Aug. 31st, 1888. J. J. UNDERWOOD, M.B.

The following is the translation referred to:—

"The famous old establishment for medicines to cure sudden affections of the stomach, &c., &c., &c.

To show our secrets we refuse;
Goods once sold—we know no more;
Heaven knows the drugs we use;
'No cash returned' is on our door.

All the drugs used in compounding our medicine are of the very best quality, and the utmost care is used in the manufacture. Neither labour nor expense is spared in our aim to benefit mankind. The fame of the medicine is spreading throughout the world. We draw the attention of the nobility and gentry to our establishment at Foochow. 1st. For disturbance of the stomach with twitching of the muscles, depression of spirits, tightly closed mouth, insensibility and collapse, blue and black nails, and refusal of blood to flow, take several of the pills, pound them, and rub the inside of the nostrils. When sensibility is restored, drink tepid water in which seven pills have been dissolved. This will set the patient right. If the symptoms be very bad, take seven more of the pills; this cannot fail to cure. 2nd. For cold or heat with pain in the stomach, dark rims round the eyes, place three pills on the tip of the tongue, and let them dissolve; when the tongue begins to burn, swallow. This will cure. 3rd. For internal chill or heat, disturbed stomach with vomiting and purging and coldness of the extremities, or retching and straining, first take a dose of burnt salt in tepid water, then introduce some pounded pills into the nostrils, and pour down the throat the tepid water. 4th. For the evil effects due to the impure air on mountains or travelling with an empty stomach, take three of these pills and keep them in the mouth for a time, and you need not fear. 5th. For convulsions and unconsciousness in children, with tightly closed teeth, pound up some of the pills, and rub the powder over the inside of the nostrils, then mix some in water and pour down the throat. 6th. For fever, with lassitude, headache, flatulence, eructations, &c. the pills may be taken. 7th. For injuries from snakes, insects, &c., rub a few pills to powder, mix with good wine to a paste, and rub over the injured part. 8th. Unconsciousness due to a fall, a blow, fits, &c., sunstroke, suffocation, and fright (as from seeing ghosts, &c., &c.), pound some pills and rub inside the nostrils, and pour some dissolved in tepid water down the throat. Consciousness will be restored. 9th. For apparent death from hanging, do not cut the body down; but lower it gradually, and rub the inside of the nostrils with some pounded pills. If any warmth remains in the bosom, this will revive the patient. Pregnant women must not take this medicine. The prescription is a perfect secret, and merits again and again success. All those who remain at home or travel abroad should have them, as they are good in all cases of sudden indisposition."

EXTRACTION OF FISHING HOOKS.

To the Editors of THE LANCET.

SIRS,—The following method of extracting fishing hooks when by accident they have entered the tissues will be found useful to practitioners residing near the sea. Instead of pulling out the hook, thus causing great pain and tearing, or, again, cutting upon it and making an operation of it, I simply protrude the arrow-shaped end of the hook, and cut it off with strong bone pliers, thus leaving a rounded end, which can now easily be extracted by the original aperture.

I am, Sirs, yours faithfully,

Guernsey, Oct. 10th, 1888. B. BARNARD, M.B., C.M.

SHIP SURGEONS.

To the Editors of THE LANCET.

SIRS,—Some of the steamship companies in London and elsewhere are obtaining surgeons on their ships without salary. This they do in some cases by representing to the surgeon that it is customary, and that many are anxious to go for nothing. The system will deprive regular ship surgeons of their living, as well as degrade the profession in the eyes of the public. The owners are bound by law to carry a surgeon, and can better afford to pay a fair salary than the surgeon to work for nothing.

I am, Sirs, yours truly,

Oct. 12th, 1888. NOT A SHIP SURGEON.

TRAINING OF THE DEAF AND DUMB.

IN reply to a query by "Lit." in our last issue on the above subject, a correspondent has kindly furnished us with the following list, which is extracted from a little book recently reviewed in our columns, entitled "The Children of Silence."

Institutions for the Deaf and Dumb in Great Britain.

Aberdeen: Belmont-street, manual system; *Bath:* 8 & 9, Walcot-parade, combined; *Belfast:* combined; *Boston Spa:* combined; *Brighton:* combined; *Bristol:* Tyndall's-park, manual; *Doncaster:* combined; *Dublin:* St. Joseph's, St. Mary's, and Claremont, Glasnevin, manual; *Dundee:* manual; *Edinburgh:* Henderson-row and Donaldson's Hospital, combined; *Exeter:* combined; *Edgbaston:* combined; *Glasgow:* combined; *Hull:* Dock-street, manual; *Landaff:* manual; *Liverpool:* Oxford-street, combined; *London:* Old Kent-road, S.E.; 11, Fitzroy-square, W.; Lower Clapton, E.; Walmer-road, Notting-hill; Wilmot-street, Bethnal-green; Winchester-street, Pentonville; Bell-street, Edgware-road; Victoria-place, Walworth; Upper Grange-road, Bermondsey; Castlebar-hill, Ealing; and Holland-road, Kensington, oral; *Manchester:* Old Trafford, combined; *Margate:* combined; *Newcastle-on-Tyne:* Mooredge, combined; *Northampton:* oral; *Swansea:* combined.

Another correspondent writes: "I can with confidence recommend Miss Newth (daughter of Prof. Newth), 62, Murray-street, Higher Broughton, Manchester, as an instructor of the deaf on the oral system. She would, I am sure, give your correspondent, 'Lit.,' all information."

M.D. Edin.—The article by Dr. Troup on the Early Diagnosis of Phthisis by the Microscope was published in the *Edinburgh Medical Journal* for July last. A criticism of the paper appeared in our columns on the 7th of the same month.

Radipole.—The only law concerned in the case is the law of kindness.

ISCHL.

To the Editors of THE LANCET.

SIRS,—Whilst at Vienna this summer I paid a visit to Ischl, and can therefore corroborate what your correspondent writes as to its unsuitability for many invalids. Not only is its climate variable and chilly, but even in fine weather the dew is very heavy. It would therefore appear unsuitable for rheumatic and pulmonary invalids. The baths at Ischl are numerous and well-appointed, the "pine baths" holding a prominent place. These are simply ordinary warm baths, to which a certain amount of liquid pine extract with some saline has been added. As the pine products are now largely imported, it is obvious that patients need not take a trip to Ischl in order to undergo pine treatment. The mud bath is a form of bathing not practised in this country. It is by no means unpleasant, but rather the reverse, as I can testify from personal experience. It is used chiefly in certain chronic skin diseases, and is given at Ischl at a temperature of about 90° or 95° F. The inhalations of saline spray practised at Ischl are, I should imagine, of somewhat doubtful therapeutic value. The spray issues with considerable force, and is icy cold. It is certainly not a pleasant remedy. Your correspondent does not allude to the inhalations of compressed air. There is at Ischl an arrangement for medicating the air, if desired, with volatile pine oil. Although unsuited for some patients, Ischl is yet a place from which the overwearied brainworker and the hypochondriac may alike derive benefit. The mere pleasure-seeker may also pass a short time there with enjoyment. It is, indeed, as a fashionable resort that it is chiefly frequented by the Austrians. Those fond of mountaineering will find numerous opportunities for climbing—ranging from hills of moderate elevation and easy of ascent to the more distant snowclad heights which test the skill and endurance of the practised Alpine climber. I cannot, however, lay claim to any personal experience in this direction.

I remain, Sirs, your obedient servant,

South-street, Park-lane, Oct. 13th, 1888. F. AUGUSTUS COX, M.B.

THE CLIMATE OF TEXAS.

To the Editors of THE LANCET.

SIRS,—In reply to "M.K. & Q.C.P.I.," in your issue of Aug. 11th last, I beg to state that in the case he mentions I should think that the climate of Texas in that part (Concho co.) would be highly suitable. I have served all through that country, and the air is most bracing and exhilarating. At all the military posts in that section of the country the sickness of the troops in a *per ratio* is almost *nil*, and the northern part of Texas is noted for its healthfulness. Fort Davis, a few miles further north, is the resort of many people from the more southern districts, especially invalids, who go there to enjoy the life-giving properties of that pure atmosphere.—I am, Sirs, yours faithfully,

H. GRAHAM,
Hospital Steward, U.S. Army.

Fort Randall, Dakota, U.S.A., Sept. 11th, 1888.

Tyro.—Full information on the several points will be found in our Students' Number.

Mr. Walsh is thanked. The matter shall have immediate attention.

Querist.—Certainly.

POISON BOTTLES.

MR. NUTTER, of Minneapolis, has patented a device for poison bottles. With the stopper is a plate having sharp points on its outer side, and a fastener on its under surface to attach it to the stopper. When bottles of this kind are used the sharp points will grasp one's hands thoughtlessly applied.

Mr. L. Kidd.—"The Filaria Sanguinis Hominis," by P. Manson, M.D. (Lewis, 1883).

Dr. Le Grand.—We regret the inadvertence, which is not likely to recur.

F. G. S.—The question must be answered in the negative.

Student.—Roscoe's Chemistry.

A COMPLAINT OF DISCOURTESY.

To the Editors of THE LANCET.

SIRS,—I beg to call the attention of your readers, particularly young qualified gentlemen, to the great lack of even ordinary gentlemanly conduct as shown by many medical men who advertise for qualified assistants. These advertisers invite qualified gentlemen to apply for their posts and ask for full particulars of four curricula, references, testimonials, photos, &c., and many of them do not even show common courtesy by sending one word in answer on a thin post-card. I object to this most strongly, but I begin to feel legally inclined when cabinet photos are retained. My opinion is that young medical gentlemen have to learn to put their university ideas of medical etiquette on one side, and by no means take that of a great many of the older practitioners as their guide. I am, Sirs, yours truly,

Oct. 17th, 1888. A PHOTO VICTIM.

SYPHILIS IN THE ARMY.

To the Editors of THE LANCET.

SIRS,—It is stated that one in every five of the Foot Guards in London suffered from syphilis in the year 1874. Is this statement correct? Does it mean that one-fifth of the men actually had the disease? Or that the number of admissions to hospital was in the ratio of one to five of strength, several admissions being due to one man?

I am, Sirs, yours truly,

October, 1888. A MEDICAL MUSER.

*** The Army Medical Reports show the number of cases admitted into hospital for primary venereal sores among the troops in London in 1874 to have been in the proportion of 179 per 1000 of the strength. It is probable that the cases of secondary syphilis would bring the ratio up to 200, or one to five of strength.—ED. L.

TREATMENT OF CHRONIC DYSENTERY.

To the Editors of THE LANCET.

SIRS,—I have under my care at present a poor woman suffering from chronic dysentery. The usual remedies have been tried without avail. I see in Quain's Dictionary of Medicine that a water-belt is recommended; could any of your readers inform me where one is to be obtained and if of practical utility, as well as suggest what further can be done? I am, Sirs, your obedient servant,

Oct. 17th, 1888. ENQUIRER.

ERRATA.—In the letter of our Liverpool correspondent published last week the name of Mr. Reginald Harrison was given in mistake for Mr. Damer Harrisson, as that of one of the surgeons who assisted in dressing the wounds of Dr. Barr.—In the last line of the annotation headed "Pyorrhœa Alveolaris in an Elephant," page 730, for "antro-dental gingivitis" read *arthro*-dental gingivitis.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. W. P. Latham, Cambridge; Mr. J. B. Sutton, London; Dr. Spottiswoode Cameron, Huddersfield; Dr. Cheadle, London; Dr. B. W. Richardson; Dr. S. Fenwick, London; Dr. Whipham, London; Mr. Kershaw, London; Mr. Hummel, Philadelphia; Dr. Barnard, Guernsey; Dr. Coupland Taylor, Madeira; Dr. Robertson, Newcastle-on-Tyne; Dr. Radcliffe Crocker, London; Mr. B. Hewetson, Leeds; Mr. F. C. Fisher, King's Langley; Dr. G. Thompson, Fishponds; Dr. Underwood, Pagoda Anchorage, China; Mr. J. M. Pardey, Launceston, Tas.; Dr. Julius Pollock, London; Dr. A. Cox, London; Dr. A. J. Richardson, West Brighton; Mr. Drummond, Manchester; Dr. T. Oliver, Newcastle-on-Tyne; Mr. J. B. Pike; Dr. Le Grand, Southampton; Mr. P. M. Yearsley, London; Dr. Milligan, Liverpool; Mr. Hackman, Portsmouth; Mr. Harvey, Fulham; Mr. Ballance, London; Dr. Rentoul, Liverpool; Dr. Cremen; Mr. M. Sheild, London; Dr. Barron, Southport; Dr. Dickinson, London; Mr. J. H. Morgan, London; Mr. J. F. Harries, Shrewsbury; Dr. F. T. Tayler, Lewisham; Mr. R. F. Gill, London; Mr. Burnie, Brighton; Mr. Cook, London; Mr. T. J. Verrall, Brighton; Mr. Webster, Bootle; Mr. Leach, Bath; Mr. Johnston, Glasgow; Mr. Mussell, London; Mr. Gosse, Sittingbourne; Mr. C. Hancock, London; Lieut.-Col. Everitt, London; Mr. McClune, Pontypridd; Mr. Foulerton, Chatham; Dr. A. G. Barrs, Leeds; Mr. F. C. Turner, London; Mr. Sweeting, Fulham; Miss G. Wright; Mr. O. H. Brown, London; Dr. Aikman, Guernsey; Mr. Laban, West Bromwich; Mr. Boehm, London; Mr. D. Walsh; Mr. Siggs; Mr. Blancard, Ramsgate; Alpha; W. W. H.; H., London; H. & R., London; Not a Ship-Surgeon; M.D., Derby; Staffs Infirmary; Radipole; Medical Superintendent, Devizes; C. M. M.; M.R.C.S. & L.S.A.; A Photo Victim; C. H. S.; Nemo, London; Inquirer; Delta, Folkestone; Rex, London; Enquirer.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Taylor, Manchester; Mr. Rigby, Lancashire; Dr. Pavy, London; Mrs. Blair, Staplehurst; Mr. Jackson, Yorks; Mr. Hawkes, London; Mr. Lee, Leeds; Mr. McMunn, London; Mr. Leggatt, Kent; Mr. Newsholme, Sheffield; Mr. Milner, Norfolk; Miss Hunt, Dublin; Dr. Bentham, Brighton; Mr. Wraith, Darwen; Mr. Costa, London; Messrs. Lewis and Sons, Bath; Mr. McJerrow, Edinburgh; Messrs. Maw, Son, and Thompson, London; Mr. Maclean, Ashbourne; Messrs. Maclehose and Sons, Glasgow; Mr. Heywood, Manchester; Messrs. Pratt and Co., London; Mr. Elliott, Carlisle; Mr. Logan, Glasgow; Mr. Bland, Stourbridge; Mr. Sympson, Lincoln; Mr. Ritchie, N. B.; Mr. Lake, Barnes; Mr. Hewett, Bridgnorth; Mr. Davis, London; Dr. Harding, Whittlesea; Dr. Adam, West Malling; Mr. Adams, Birmingham; B. D., London; N. W., London; Leamington, London; Cheltenham General Hospital; M.D., Malvern; A. B. C., London; Springfield House; G. D., London; C. R. K., Dover; Aries, London; Queen's College, Birmingham; S. W., London; Candidate, London; South Hants, London; Zoster, London; Medicus, Mon.; M.D., Crewe; The Hospital, Rotherham; M.D., London; F.R.G.S., London; Halifax Infirmary; V. G., London; Boaz, London; Medicus, Yorks; W. X., London; G. E., London; J., Sevenoaks; G. F. S., Lancashire; Sligo, London; E., Birmingham; Chez nous, London; Medicus, Margate; Charles, London; Poop, London; Delta, London; Canula, Leeds.

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